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# GLEANINGS IN THE BEE CULTURE

A JOURNAL DEVOTED  
TO BEES,  
AND HONEY,  
AND HOME  
INTERESTS.

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No. 17.

## STRAY STRAWS FROM DR. C. C. MILLER.

CANADIAN reports, as well as reports from this side the line, indicate a short crop.

KEEP UP the discussion about hives. [Yes, but I must have more votes than this to keep it up.—ED.]

KEEP OUT of GLEANINGS the silver discussion. [Quite right: and all other political questions.—ED.]

SUPERSEDING queens, when left to the bees, is usually done in May, says C. W. Post in *C. B. J.* I think my bees do most of that in the fall.

HUTCHINSON says, as a rule a honey-board need not come off oftener than once in three years. He also thinks it is needless to number hives.

AFTER USING divisible brood-chambers for years, Hutchinson says he has never seen any evidence that the queen is likely to neglect one section.

"MORE GOOD PEOPLE in the world than we sometimes suppose," is what I said, and Somnambulist warns me, "Look out, doctor, for mud-balls from the anti-mutual battery."

SQUEEZING and wringing still bring a good lot of juice out of the hive discussion. As long as that is the case, it is well to keep it up. [Yes, I rather think so; but I want our readers to indicate their pleasure.—ED.]

DEUTSCHE IMKER, a German bee-journal, contains the information that, of the 3500 varieties of plants in that region, only 60 yield both honey and pollen; 900 yield honey only; 250 only pollen, and 130 propolis.

A COLORADO MAN thinks I'd better quit trying to get honey from straws, and come out there where I can get it from alfalfa. Perhaps so; but if I can get the alfalfa to come here, that may be cheaper than to move.

MOVING BEES. Here's a plan for short distances, given by H. E. Hill in *American Bee-*

*keeper*: Put three frames of brood with queen and most of the bees on new location. In six days move the rest, cutting out queen-cells.

"WE'VE ALWAYS to keep in view the fact that next year's greatest problem may prove to be the caring for an unusual crop," says Somnambulist, in *Progressive*. I've kept that in view so long, Sommy, that my eyes begin to feel strained.

THE QUEEN of a colony that has wintered badly is thereby injured herself, and is better replaced, says C. W. Post, in *C. B. J.* Such a colony is usually hard to pull into shape; but I never before thought of blaming the queen. He may be right.

CARNIOLANS are said to be hard to distinguish from blacks. Some say it's easy, but I don't remember seeing in print *how* to tell them apart. [It simply can't be told on paper. There is a difference, but you must *learn* to know it by actual comparison.—ED.]

THE *American Bee-keeper* reports that S. M. Keeler gets combs built down to bottom-bar by using bottom-bars of  $\frac{3}{8}$  wire. [I have no doubt of it. They will do more; they will build clear past them on to the next set of frames below. They did that with some of our three-eighths-square wood bars.—ED.]

LAYING WORKERS sometimes make just as nice and smooth work as queens, filling worker-cells regularly with one egg in a cell, with no difference that I could detect. But I think it is generally if not always in cases where no drone-cells are present, and generally a queen-cell with two or more eggs will tell the story.

THE COST of honey-boards or thick top-bars doesn't figure either way, you say on p. 636. Beg pardon, but it does. A honey-board costs several times as much as the extra thickness of top-bars. My honey-boards don't last like top-bars, and they cost me a good deal more than a cent a year. [Perhaps you are right.—ED.]

WOOD-BASE FOUNDATION, says *Canadian Bee Journal*, was used by D. A. Jones 15 years ago. All was lovely while the bees were busy



working, and rearing brood; but when out of work they got into mischief and set to work to eat away and remove the wood. [This was just our experience about that time too.—Ed.]

Do BIG TREES and big honey crops go together? California has both, and the enormous yields of honey in Australia come from a land which invites California to a contest as to big trees. The Sydney *Evening News* contains accounts of trees having a circumference of 40, 50, and 60 feet, and one tree has a girth of 136 feet at 5 feet from the ground.

EXPERIMENTER TAYLOR says in *Review* that, usually, the royal jelly deposited in a cell amounts to about half a common thimbleful. Haven't the women in that region rather small hands? [The women in your locality must have big hands. (Beg pardon.) I should have said Taylor's statement was about right for here.—Ed.]

MELILOTUS ALBA is considered only a weed in the Northwest; but in the South it is prized as one of our most valuable forage crops. . . . Mowed before the plant becomes too large and woody, the quality of the hay is first-class, and in nutritive quality equal to any of the clover family."—E. Montgomery, in *Agricultural Epitomist*.

QUOTH YE 'EDITOR, on p. 620, "There is a method, and it is practical, to control fertilization. See article by James Wood." With feverish haste I found the place, then a nervous shock, a collapse. Not a thing new in it. Not a thing that ever was or ever will be of value except to a very few isolated individuals. [I knew it was not new; but I don't agree regarding its limited application.—Ed.]

"USELESS CONSUMERS" is a term commonly applied to bees reared after the honey-harvest commences. S. E. Miller, in *Progressive*, raises a protest against the term being thus used. I've been looking for that sort of protest before. [What better term can you suggest that conveys the idea so well? I don't think of any. It is true they may not *always* be "useless," but if the rearing of them could be deferred a little later it would be better.—Ed.]

SOME 420 COLONIES are kept in the home apiary of C. W. Post, says *Canadian Bee Journal*. I supposed such numbers could be kept in one apiary only in the far South. Now they're going to commence doing that sort of thing in Canada, so as to make us poor mortals in the middle feel we're nobody. [But wouldn't Post's bees do far better if they were divided into two yards—one yard two or three miles away?—Ed.]

I WAS SURPRISED lately to see, within a few miles of home, a field thickly covered with hay-cocks, showing a heavy yield in this year when the hay-crop is very light. Coming closer I found it was alfalfa three years old. I didn't suppose alfalfa would grow here; but there it

was, and the second crop had been taken this year. I saw no bees on it. [There is a fine field of alfalfa not a great way from us. We didn't suppose it would grow as well as it does.—Ed.]

R. F. HOLTERMANN says lindens planted in the streets are rarely of benefit to bee-keepers, but must be in the woods to be of much value. I wish that might be numerously contradicted. [That is not true around Medina, nor in any other place I have been in the United States during the bloom. I have a row of trees in front of my house that are the equal of any trees in the woods for the roar of bees at the proper season of the year. Of course, bass-woods do better in the woods; but that those along the streets are rarely of benefit to bee-keepers is not true with us.—Ed.]

"A REVELATION" is what Somnambulist calls the statement in GLEANINGS, that the majority of bee-keepers put their sections on the market without scraping. That may be a good name for the statement, but a good name for the thing itself is "abominable carelessness." [Many times a statement may appear to be a revelation, but that does not signify that it is untrue. Bee keepers who are in the habit of always scraping their sections are apt to think all others do. You remember the Frenchman who thought because he always "parlez-vous-ed français" therefore all the rest of the world did.—Ed.]

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## GENERAL CORRESPONDENCE

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### A VISIT AT B. TAYLOR'S.

THE MAN, HIS HIVES, FIXTURES, ETC.

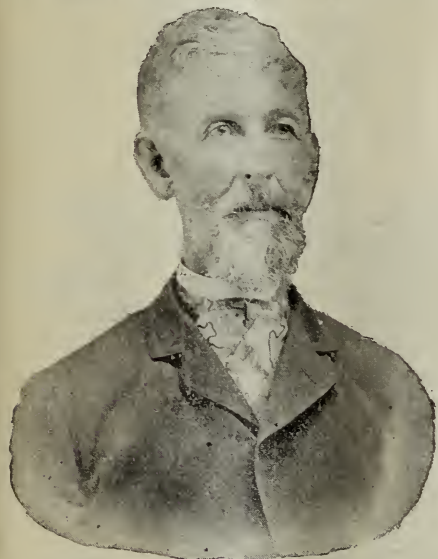
By Harry Lathrop.

Off-years are good for some things; and one is, that they allow a bee-keeper leisure time to visit other apiaries, and broaden his knowledge of men and methods. On the 19th of June I started for the Northwest to visit the home and apiary of B. Taylor, near Forestville, Minn. After a pleasant ride down the Wisconsin Valley, crossing the Mississippi at North McGregor, and on through Northern Iowa, I arrived at Wykoff Station, where I was met by Mr. Taylor, according to previous arrangement, and taken out to his beautiful home, 8 miles distant. Although Southern Minnesota is in the main a prairie country, the Taylor apiary is located in a wooded section, with narrow valleys between high limestone bluffs. This part of Minnesota produces about all the honey-plants common to the Northwest, including an abundance of basswood and white clover. To be concise, there were three things in which I was espe-

cially interested—the field, the man, and the work.

The location has been partly described. It is a land of beautiful valleys traversed by cool spring brooks, the natural home of the brook trout, and abounding in cool leafy woods in which the thrifty basswoods are plentifully distributed. The Taylor apiary is beautifully situated in one of these valleys, on sloping ground at the foot of the bluff, where it catches the first beams of the morning sun, and is naturally sheltered from winds.

Now as to the man and his methods. Mr. Taylor is more than a bee-keeper. He is a fine mechanic and an inventor. He has a nice shop containing machinery (constructed by himself) for making every conceivable appliance used



B. TAYLOR.

in bee-keeping. All his work, whether it be building a house or a bee-feeder, is thorough and exact. No time is lost in his apiary through having fixtures that won't fit. I did not see an imperfect joint nor a warped cover on the place; and when Bro. Taylor makes any claim or describes any appliance in the bee-journals you may be sure it is just as he says it is. My expectations were fully met. He informed me that each appliance he uses was adopted after many experiments, until finally he has selected what he considers the best after many practical tests, and he has the things themselves to show each step by which he has arrived at present conclusions. Having time, and proper tools and machinery, this was much easier for him to do than it would be for many. Very few bee-keepers can attempt to do what he has done in the mechanical department, but must adopt, as best they can, the methods of others.

Mr. Taylor has never made an effort to establish a supply business. He seems to have little or no desire to do a large business, therefore his well-equipped shop and beautiful machinery stand idle a large part of the time.

The hive adopted is the same in nearly every respect as his shallow-depth sectional hives, except in the depth of the frame. The one he prefers is only a little shallower than the ordinary Langstroth frame. He prefers what would be considered a small hive, and gets very large swarms from them too, as I can testify from what I saw. I was fortunate in being there just in the swarming-season. In honey production he can show a record above the average; but that may be, and probably is, largely due to a good location. He is not so particular as some in regard to pure races of bees; but his colonies show the mark of health and vigor—the result, evidently, of properly bred queens.

I was much interested in the following: His house-apiary, bee-cellar, readily movable self-spacing frames, interchangeable hive-body, bee-escape, section-holders, solar wax-extractor, feeders, and swarm-catcher. The latter appears to be his pet hobby at present; but for myself I am so well pleased with my method of working with clipped queens that I am not much interested in swarm-catchers. His is intended to be placed on the hive the moment you notice the swarm beginning to come off.

One thing I saw was quite instructive. I was shown a lot of hives containing nice clean combs of white honey from which the bees had died during the past winter, although they had been properly cared for. The cause assigned was that, on account of dry weather last fall, they had gone into winter quarters with old bees instead of young ones. The result was, they died off from old age just as we all shall if we don't die sooner from some other cause.

Mr. Taylor is assisted in his work by his youngest son Jewell, whom he expects to succeed him in that work—his other son, living near by, preferring fruit culture.

Mr. Taylor is an expert in gardening and fruit-growing, and gave me a few valuable hints along that line. I was told that, some years ago, he tested one hundred varieties of native wild plums on his grounds. These were brought from different parts of the Northwest. Out of this number he has selected one that he considers very superior. How few would take the time, and have patience, to conduct such an experiment! After all, where do you find more all-around handy men than among the bee-keepers?

In closing, I will say that I was so kindly treated during my stay, and enjoyed myself so well, that I feel just as though I wanted to go again some time.

Browntown, Wis.



**CRIMSON CLOVER.**

"BY LONG ODDS THE BEST BEE-PLANT;"  
HONEY VERY FINE; WHEN TO SOW;  
GREATEST RESTORATIVE  
OF THE SOIL.

*By A. F. Ames.*

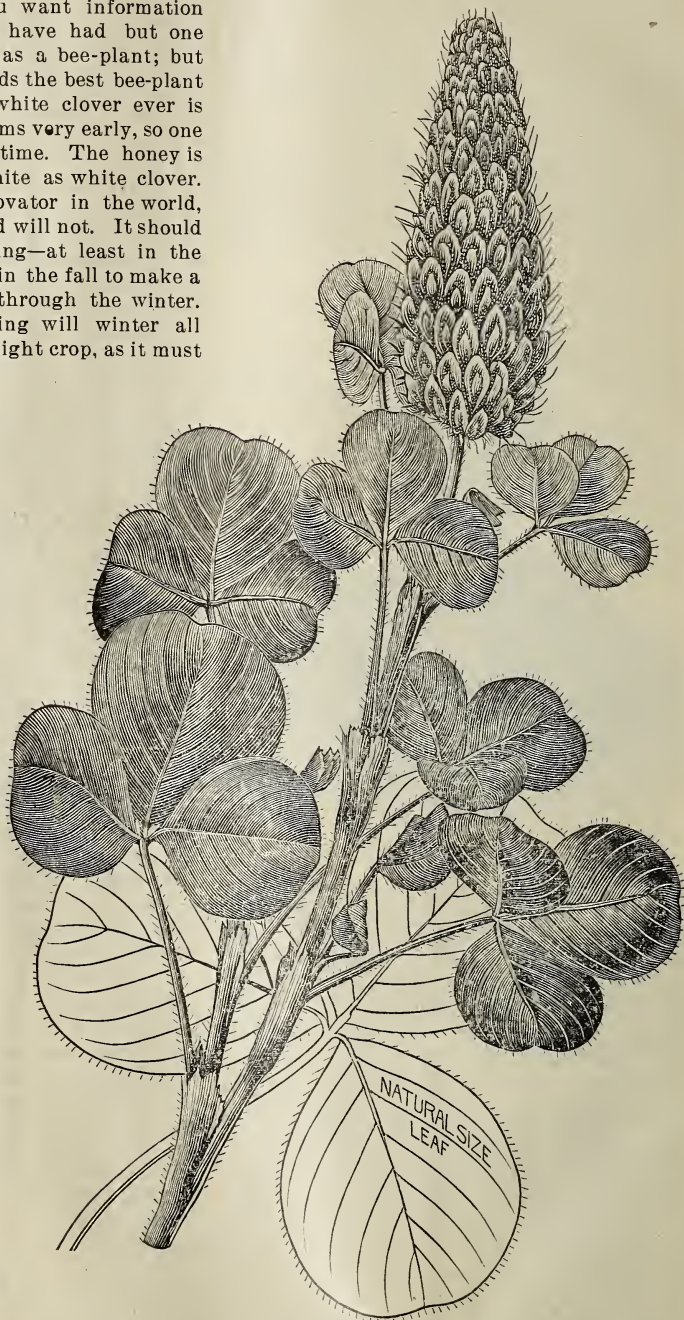
*Friend Root:*—I see you want information about crimson clover. I have had but one year's experience with it as a bee-plant; but this year it was by long odds the best bee-plant here—much better than white clover ever is here in the South. It blooms very early, so one must have bees strong in time. The honey is very fine—not quite so white as white clover. It is the greatest soil-renovator in the world, and will succeed where red will not. It should never be sown in the spring—at least in the South—but early enough in the fall to make a good growth to carry it through the winter. Here, although late sowing will winter all right, it will make a very light crop, as it must make a good growth in the fall and winter. If left to ripen it will reseed itself. The best time to cut for hay or to turn under is when part of the heads are brown. If sown so early that there is danger of blooming, pasture it. I have no fears of mine, sown the first week in July, blooming this season. It will endure as much cold as red, or perhaps more, and make over twice the growth in the same time.

Claremont, Va., Aug. 6.

CRIMSON CLOVER "OUT  
OF SIGHT," YIELDING  
LARGEST AMOUNT  
OF THE FINEST  
HONEY.

This clover was first introduced in Virginia about fifteen years ago; but it has not been largely grown in this country for more than four or five years. It can be sown in this State in August, September, or early in October, and is in bloom the latter part of April. Farmers grow it largely in this county for early green feed, and sell large quantities in Richmond at 10 cents per hamper. We generally sow ours in the

corn after cultivating the last time, seeding about 10 or 15 lbs. per acre. As a land-improver it can not be beat; and as for honey it is simply "out of sight," yielding a large amount, of the finest quality, as you will see by the sample I will mail you soon. It is not very fine



CRIMSON CLOVER.

Re-engraved from a cut in Burpee & Co.'s catalog.

for dry hay, as it is inclined to be rather dry and woody. Like all other crops it does best on good land, although I think it will do a great deal better than common red clover on poor soil.

Reports are rather encouraging this year throughout the State, my bees giving me about 35 or 40 lbs. of comb honey per colony.

Richmond, Va., Aug. 10. F. H. JEWHRST.

#### CRIMSON CLOVER; HOW INTRODUCED IN THIS COUNTRY; ITS GREAT BEAUTY, ETC.

Crimson clover was introduced in this country several years ago by the late Dr. Haralline. Being a great lover of flowers, he was attracted to the plant by its great beauty, which is hardly exceeded by the finest flower that adorns yard or garden. The beautiful deep green, which may be seen all through the winter, when not entirely covered with snow, grows deeper and brighter as spring advances, until early in May, when the flowers appear, and the field changes from a deep green to a brilliant crimson, making a sight to behold; and, remember, at first its value as a forage-plant was not understood, and as a soil-restorative it was unknown; and the progress of the plant at first was rather slow. Every one admired its beauty, and numerous plots were sown for ornamental purposes; but years elapsed before farmers awoke to its value as a regular rotation crop.

Crimson clover has now been successfully grown in all parts of the Union, and is no longer an experimental crop. It is good for hay, and will yield two to three tons per acre of the finest quality. It is valuable for seed, which it produces in large quantity; is good for fall and early spring pasture; it is also an excellent honey-plant, and makes a good bee-pasture; but its greatest value is in its ability to store up plant-food, and at the same time send down deep feeding-roots in the subsoil, and bring to the surface elements of fertility that would otherwise be lost.

Crimson clover is an annual, and must be sown in its proper season. This extends from the first of August until the last of October. About 10 quarts of seed are required to sow an acre. If any of the readers of GLEANINGS would like to test a sample of crimson clover I will send a small sample by mail for a couple of stamps for postage.

L. STAPLES.

Grand Rapids, Mich.

[All right, friend S.; but you may be swamped with orders; so, look out.—Ed.]

#### A FINE GROWTH OF CRIMSON CLOVER; THREE WEEKS AHEAD OF RED; WORTH TO THE SOIL MORE THAN 30 LOADS OF MANURE.

I sowed one-third acre of crimson clover on good onion ground Aug. 20, 1894, and it made a

fine growth, and kept green until February, although the cold had been to 20° below zero. In February the top died down, but began to grow nicely in March, and was three weeks ahead of red clover on the same kind of ground. May 1st I had it plowed under, when it was 20 inches high, and there was such a heavy growth they had to use a chain to turn it under. I planted the ground to muskmelons, and the ground kept moist except about two inches on top, through the long drouth of six weeks in May and June. I think it was worth more than 30 loads of manure. I also sowed my half-acre vineyard, and it bloomed in May, and the bees worked on it lively—more than on white clover; but I can't say as to amount or quality of honey. It made fine pasture for chickens. I consider it the greatest plant ever introduced, if used between other crops to improve land by retaining its fertility and adding nitrogen.

JOHN C. GILLILAND.

Bloomfield, Ind., Aug. 13.

#### RAMBLE NO. 139.

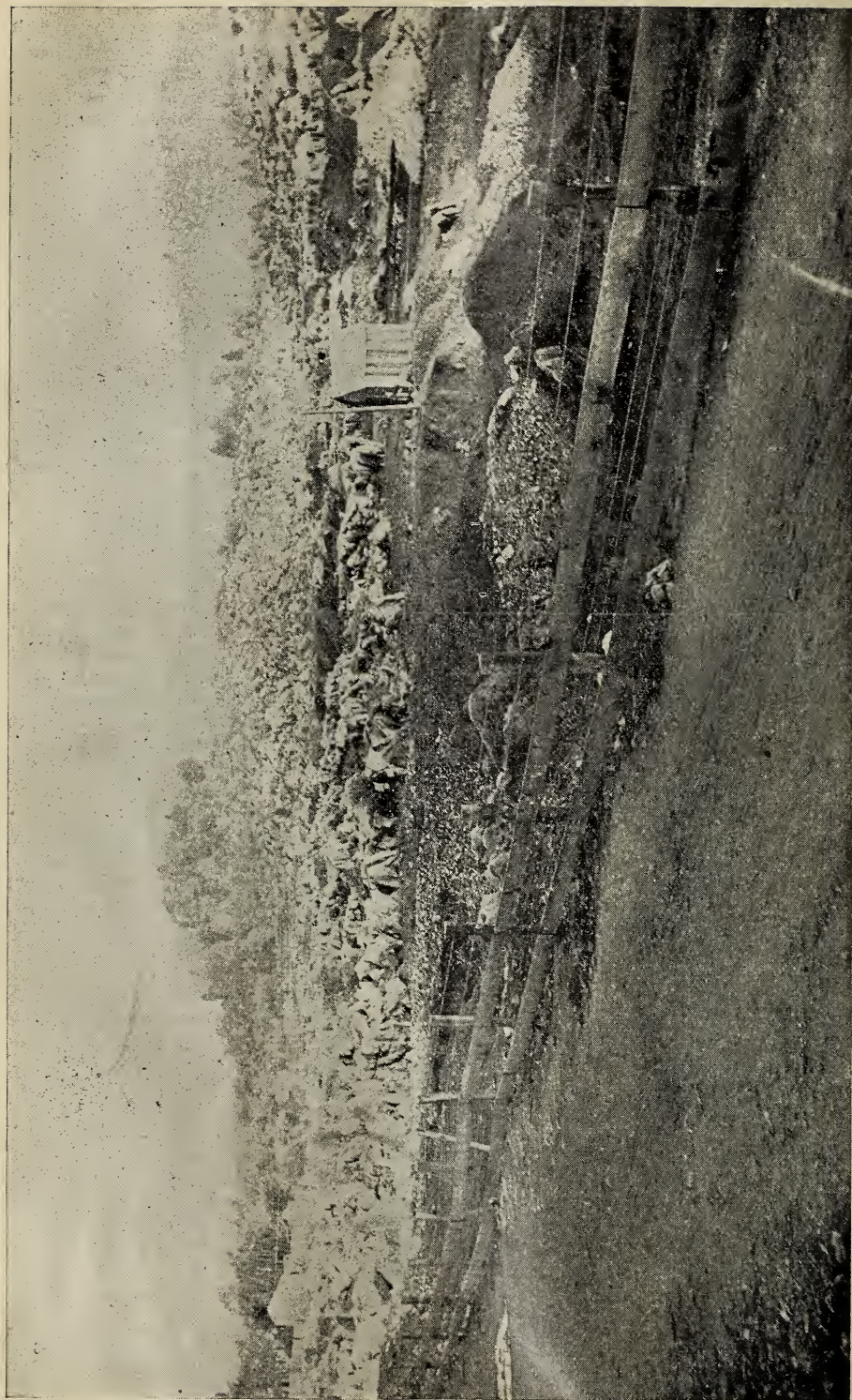
##### IN SELMA.

Although we left Murphy suddenly we did not forget to bid adieu to our good friends the Schaeffles. They all, from the head to the foot of the family, made our sojourn enjoyable, and we had reason to remember them in a substantial manner for many days. A pair of that blue tarweed honey, a bag of apples, and one of Mrs. Schaeffle's excellent pies, were all tucked into our lunch department. May the shadows of the Schaeffles never grow less.

Calaveras Co. is so full of interesting natural features that Mr. Wilder and I felt that we could have spent many more days there with profit; but southward was now our watchword. Storm-clouds began to gather in the northern horizon, and we longed for the balmy skies of our southland.

The Golden Nugget apiary, as mentioned in the last ramble, is owned and operated by Mr. Aliska. Here we find 200 colonies, the greater portion of them in a shallow hive. Before visiting this apiary I had learned that the brood-chamber and the super were both filled with  $4\frac{1}{2} \times 4\frac{1}{2}$  sections; but upon examining a few of them I found the sections in the super in wide frames, and the brood-combs were built from these same brood-frames down into the brood-chamber; and the brood-comb was removed every time a wide frame was removed with its sections. Mr. Aliska was not there to explain matters; for in the early morning his partner and himself and Ah Hin, the Chinaman, went to work with wheelbarrow, shovels, and picks, in their gold-mines, where the greater portion of their time was spent. Mr. Aliska, during the honey season, left the gold-mine and secured gold through the medium of his hives. Comb





BLASTED ROCKS IN THE GOLD REGIONS OF CALIFORNIA.



honey was the product, and the honey flora here was much the same as at Mr. Schaeffle's.

I found other bee-keepers in this same neighborhood. About a mile from Aliska's an old decrepit man and his wife had an apiary which they managed upon the old plan; and in referring to Mr. Aliska they said that he had recently come in with his new-fangled notions; "but them ar little section fixin's I don't believe in. I can git jest as much honey as he kin, any year; besides," said the old man, "I don't think much of them ar miners. Wy! if they thought thar'd be a leetle gold under this yer house they'd dig right under it in a minute, an' they claim they've got a right to by law. It's a fact, stranger; one of my neighbors has gone rackin' crazy trying to keep the miners from diggin' up his whole farm; and while he is sent off to the 'sylum his old wife hangs on to the farm with jeopardy."

Mr. Aliska was not the kind of man to dig up his neighbor's farms and feelings in that way, but he was at work in a tunnel trying to strike a "pocket," as it is termed, and a great deal of scientific reasoning and digging is practiced in trying to find these pockets. Mr. Aliska stated to us that he once struck such a pocket, and panned from one pan of dirt \$1500 in gold nuggets; and to find another pocket he might spend twice that amount. So goes the miner's life, lived on with the hope ever before him of great and sudden wealth. In the long run a steady devotion to the production of honey would probably bring in more nuggets of gold than the pick and the shovel.

This portion of country we now pass through shows more and more the wear and tear of placer mining. Where once were fertile tracts of land there is now nothing but piles of coarse debris and acres of ill-shaped pointed rocks. The fine earth has all been washed away, and thousands of acres of such torn surface are found in Calaveras and Tuolumne Counties.

On our journey we cross the famous Stanislaus River; Sham's, and various other flats; Jintown, and Poverty Flat, all made more or less famous by the writings of Bret Harte, whose home, as well as that of Mark Twain, was formerly in Angel's Camp.

We gradually get beyond the mining lands, and drop, as it were, from hill to hill until we get again into the great San Joaquin Valley; and after three days' drive from Mr. Schaeffle's we are alongside the S. P. R. R. at Merced. From this point we have over 300 miles to traverse ere we get under our own climbing rose-bush and pepper-tree.

Another three days we traveled through an extensive grain and grazing country, and with it were scores of square miles of unimproved and barren lands whereon the wild goose quawked, the turkey-buzzard foraged, and the traveler accelerated his pace. The desert ap-

pearance at this season of the year was enhanced by seeing now and then the bleaching bones of some weary bovine that had given up the hopeless pursuit of forage, and had died for the want of it. The honey-bee, if located here, would find as little forage as the cattle; and it occurred to me that, while so many are talking about rearing queens upon lonely islands, here in the midst of these great plains would be a fine place to mate queens with special drones. The little queen-rearing apiary could be established for a while upon some large cattle ranch. A little sugar to stimulate, and not another bee within 20 miles! who could desire a better place?

We were pleased to reach Selma, in Central California, on Saturday evening. Here we again strike a honey-producing country and a large number of bee-keepers. Mr. J. C. McCubbin, with whom I had a pen-and-paper acquaintance, lived in the edge of the town, and upon a vacant lot near his residence we picketed our horses and pitched our tent, and sojourned over Sunday. It is good for brethren to dwell together in unity, and attend church on Sunday.

I had a sort of vague idea that our friend was a bachelor; but the idea was dispelled as soon as I looked inside the dwelling. If I must in fairness say it, no bachelor could ever keep a house in such tidy order as we found that house. A bachelor always forgets to put things back in their places; and if he does, his fingers are so clumsy that they knock over several other things; then a bachelor generally has a horror of sweeping down cobwebs, and they will dangle from the ceiling; but a good housewife never forgets these things.

We found it so in the McCubbin mansion, for there was neatness and order, and then there was a little cherub of a baby, just old enough to double up its fists and make mouths at us.

The baby was quiet enough to allow us to talk bees until near midnight, and we had something near to inspire bee-lore, for Mr. McCubbin was getting his honey ready for market, and had several tons of nice comb honey nicely graded, crated, and stored in his house.

In this portion of California the yield is largely from alfalfa, and at the time of our visit (Nov. 24) the bee-keepers around Selma were getting a fair crop of honey ready for market, while in nearly all of Southern California bee-men were pouring sugar syrup into their hives.

The yields from alfalfa are not so great as from sage; but, having a more uniform yield every year, the bee-keepers make fully as much money out of their bees, in the long run, as they do further south—at least, I will make that statement and let it stand until it is proved otherwise.

While the leading honey-plant around Selma is alfalfa, on the "West Side," as they term it,

the sages yield an abundant honey crop; and cases were cited where 500 colonies had given 65 tons of extracted honey; and apiaries with a less number of colonies, yields in proportion.

All the way up the San Joaquin Valley we hear much of the "West Side," and that means the west side of the valley, where it is bounded by the Coast Range of mountains. The east slope of this range seems to have an abundance of sage, while the western slope toward the Pacific, over which we traveled earlier in the season, has but a small acreage of it.

The west side, as we go up the center valley, has a distance varying from 20 to 60 miles.

### SALISBURY'S HOUSE-APIARY A SUCCESS.

#### HOW TO CONSTRUCT ONE.

*By F. A. Salisbury.*

In the fall of 1893 I built my first house-apiary, and liked it so well during the season of 1894 that I built another out about three miles, near Split Rock. The first view shows how the last one looks from the outside. The whole is on a stone foundation, with five win-

width and runs from the cornice to the sill. First at each end is red; then white; then blue; then yellow; then green.

In the center there is a room 9 feet 4 in. wide, and 12 feet long, the outside of which is painted white. In the center of each color is a window without glass, but with doors 14x20 in., that can be fastened. The hinges used are blind-hinges, and the catches are blind-catches. Along the ridge there is an opening running nearly the whole length of the building, 12 in. wide. Over this is built a roof. When shingled and sided up, the cupola has an opening on each side at the top, of 3 in., running the whole length. In each end of the building there is a door. The entrances are cut through the siding  $\frac{1}{2}$ x8 in., and an alighting-board 2x12 in. is nailed just under the opening, even with it.

The second view is an inside one, looking from the center toward one end. On each side you will notice there are two shelves, the bottom one being 8 in. from the floor, and the upper one 53. Doors are placed 15 in. from the shelves. On the shelves the hives are placed 2 feet apart.

The bottom of the hives or shelves proper are



EXTERIOR VIEW OF SALISBURY'S HOUSE-APIARY.

dows in it for ventilation, 6x18 inches. On top of the wall is embedded in the mortar a 2x10 inch; on top of this are placed the joists, 2x10, two feet apart. Beginning at each end, the second one is to be 28 in. from the end to center of stud. The rest to be 24 inches from center to center.

Begin the laying of the floor from each side, laying about two boards; then put up the studs; on top of them the plate, and then the rafters. Studs are placed over the joists, and rafters over the studs. The plate is made of two 2x4-inch studding. Use cove ceiling for the siding. It is painted in five colors. Beginning at each end, each color takes six feet in

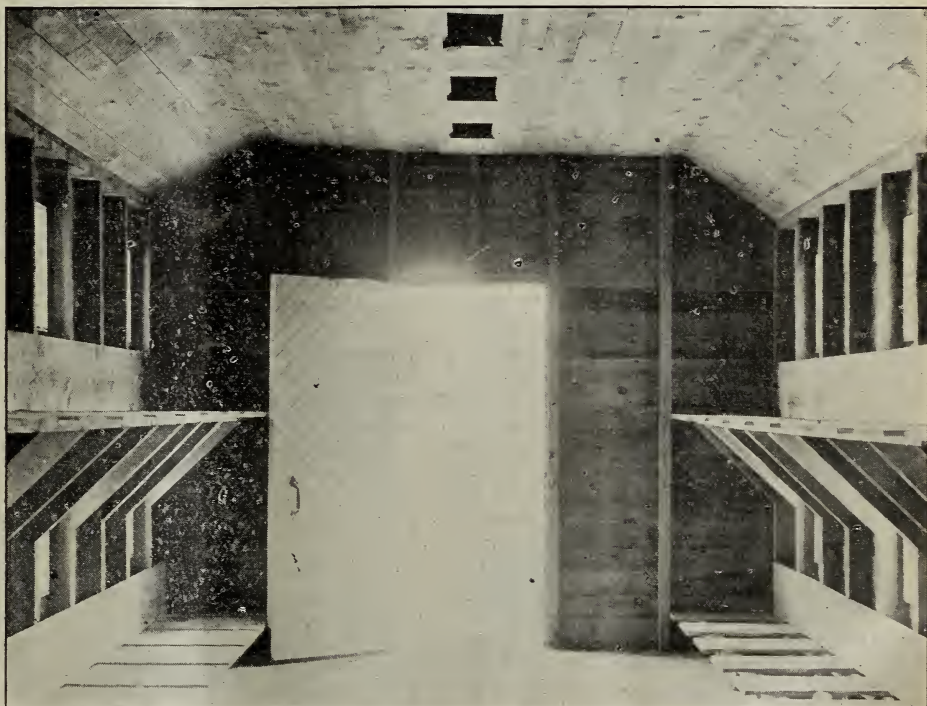
so made that the center of each hive is over a space that is open (see the shelf at the right on the bottom). In this space can be placed a board, making a tight bottom; or during the summer months the space can be filled with a frame covered with wire cloth. By using the wire cloth at the bottom the bees are much more comfortable in hot weather, and I think it has a tendency to prevent swarming. During the season of 1894 we had only 11 colonies swarm from 101; this season, only 1 from 114. One would think that the bees would proceed to fill up the wire cloth with propolis; but we have had the screen in use now two seasons, and they are as clean now as when first put



under. We thought they would have to be cleaned at the end of each season, but were pleased to find that they would not. On the left-hand side you will notice that boards are in the open space; these are for use in winter, fall, and spring.

During the honey season we use the wire cloth in its place. By looking closely you will see the grooves in the shelves alongside of each opening; these are for feeding. They are  $\frac{3}{8}$  of an inch deep, and  $\frac{3}{4}$  wide. Before using they are varnished with shellac varnish to keep them from leaking, and absorbing the feed, thus keeping them tight, sweet, and clean. The hives are placed on the shelves with the

hive; and with two-quart cans there is a capacity of 6 lbs. at each feed. We have found that one can to each colony is sufficient in ordinary cases. Two cans can be used over each groove, and this will give a capacity of 12 lbs. to each colony. It will be much better to have the shelves gotten out by machinery; and if you think of building, I would give the order to the A. I. Root Co. Mine were made by them; and in ordering, mention "sizes given in order 26,542," with two blocks for each hive, 2 in. long,  $1\frac{1}{2}$  thick and  $2\frac{3}{4}$  wide. Order 26,542 was for 100 colonies. The blocks are to use in the feeders when not in use, to close up the hole under the hives to keep bees in. Looking



INTERIOR VIEW, SHOWING ONE END OF HOUSE-APIARY.

frames running the same way as the shelf; and as the hives are 20 in. long there is about 4 in. between the ends of the hives. The shelves are 28 inches wide from the siding. The groove for feeding is long enough to run from about 2 in. from the inner edge to nearly across the hive. By using quart Mason fruit-jars you can see at a glance from each end of the building how the food is being taken. In using the grooves, place a piece of wire cloth in the groove close up to the hive, and no bees can come out into the building. Feeding with this arrangement has no terrors, and no robbers can bother. The feeder is always ready at a moment's notice. Two grooves are under each

overhead you see openings in the center, and running the entire length of building, with slides to cover them when not needed.

In the winter and summer months they are always open; in the winter, to keep every thing dry, and in the summer to keep down the temperature and carry off the smoke from the smoker. During the spring months, keep them closed.

The first building built had only three openings, each about 8 in. square. These would not carry off the smoke fast enough, and this building was made so there is ample ventilation. Each opening is 2 feet by 10 in., and are 2 feet apart. All the openings overhead are equal to

one opening 35 feet by 10 inches. The smoke just hustles up and out lively. On the floor there is built a raised floor 12 in. high and 22 in. wide. On each side of this are openings 22 in. long and 6 in. wide every 6 feet. The raised floor begins 6 feet from the door, and runs to 6 feet of the honey-room, which is in the center of the building. No flooring is laid under this raised floor. The honey-room is made tight, and has a door in each end of building. Each end holds 60 colonies. Studs are 2 feet apart from center to center, except the second one from the ends, which are 28 in. from the end. This gives room to handle the corner hives. Rafters are 2x4's, placed exactly over each stud. Collar beams are 9½ feet from the floor, and are also 2x4's. Over the shelf, and nailed to the studs, are boards about 14 in. wide and ¾ in. thick. In the winter there is placed another on the inner edge of the shelf, and these boards make a trough in which is packed chaff or planer-shavings. The building is ceiled overhead. The entire length is 70 feet, and width 12 feet; cost per running foot, \$4.80, or \$336 for the building; all work hired. If you do all the work yourself, the cost would be about \$90.00 less.

#### DO BEES DISTINGUISH COLORS?

Bees locate themselves nicely by the colors, very few bees going into the wrong hive or different color. I happened to see something a few days ago that convinced me that bees can tell colors. The north end of the building has no bees in it, but there are 46 in the south end. I noticed that there were bees flying out and in the yellow color in the north end, and thought it was rather funny; thought possibly a new swarm had gone in there. In the south end there was one colony that was flying strongly— young bees out for exercise. They were from the first hive in the yellow toward the north. The bees were also returning, some of them, to the first entrance toward the north in the yellow color in the north end. After the bees in the south end had quieted down, there were no bees going out and in the other in the north end. The entrances were 27 feet apart. This is plain evidence to me that bees can tell colors; and, mind you, they entered the entrance in the north end of the building, and the same relative position of the yellow color, and not any other.

F. A. SALISBURY.

Syracuse, N. Y., Aug. 7.

[When friend Salisbury was visiting us a few months ago he told me something about his house-apiary. Knowing that it was a success I requested photos and an article describing it.

I have always felt a little skeptical regarding the ability of bees to distinguish colors; but friend S. gives an incident that shows conclusively that they have this power. In the building of house-apiaries I think we shall have to conclude that painting the different parts of the structure in different shades is a necessity. One difficulty with house-apiaries heretofore

has been the confusing of the entrances by the bees.—Ed.]

#### BOTTOM STARTERS IN SECTIONS.

##### SOME INSTRUCTIONS TO BEGINNERS.

By Dr. C. C. Miller.

A correspondent writes: "I believe you cut a starter in both bottom and top of the section. I have tried putting in a bottom starter, but the bees always gnaw it down. Can you tell me what to do to prevent this sort of work?"

I believe it may be worth while for me to do more than merely answer the question asked. Possibly I overestimate the importance of a bottom starter, as we are always likely to think well of our own babies. But I know that, since I used bottom starters, I don't have combs break out in sections in shipping as I formerly did. Often, before using bottom starters, a section would be finished up with a space of about half an inch between the comb and the bottom bar of the section; and in transportation such a comb would swing back and forth and break off. Besides, a section looks ever so much better to be filled clear down, and it weighs more.

There is another point in favor of bottom starters for those who have out-apiaries that I never thought of till I saw it mentioned in the A B C. A starter that comes down within one-fourth inch of the bottom-bar of the section is inclined to swing in hauling to the out-apiary. If the starter is only an inch or so wide it will not swing at all. Just how wide it must be before it commences to swing, I don't know; but I know that a starter that fills the section all but a quarter of an inch will swing a great deal more than one that is three-quarters of an inch less.

In "A Year among the Bees" I say I shall never use bottom starters less than 1 in. deep, and shall experiment to see how much deeper can be used. That's one of the many cases in which I don't know as much as I thought I did. Further experience made me settle down on nothing wider than three-fourths inch for a bottom starter. Wider than that they're in too much danger of toppling over when they become warm with bees on them.

Sometimes bees will gnaw down to bottom starters; but if every thing is just right, there isn't much danger in that direction. If sections are allowed to stay on a hive when there is no need for them, bees are likely to gnaw the foundation, both upper and lower, and the lower seems to have the worst of it. So it's a good plan to take off sections when a dearth comes, even if they be put on again later. Besides gnawing the foundation, the bees daub it with propolis when idle.

Bees are more likely to gnaw very thin foundation, whether it be at top or bottom, and the very thin topples over more easily than that



which has a little more in the shape of side wall. When convenient I like to have the bottom starter of a little heavier foundation than the top.

I always use foundation enough to fill the section all but about a quarter of an inch, and I don't know for certain just what would be the result of using a narrower starter both at the top and bottom; but I suspect that there are times, when honey is not coming in very rapidly, when a bottom starter under a narrow top starter would be gnawed down; whereas one with only a quarter-inch space between the two would be respected. Where there is a big space between the two starters, the bees are more likely to act as if they thought the bottom starter ought to be got out of the way; whereas with only a fourth-inch space between, the bees at once begin to join the two starters, and after that the bottom starter is pretty safe.

To sum up, then, if you don't want bees to gnaw down your bottom starters, don't have too great a space between them and the top starters; don't use for them foundation too thin, and don't let sections stay on the hive when the bees are idle.

#### KEEPING TOPS OF SECTIONS CLEAN.

A friend thinks there should be some way devised by which the tops of sections in T supers and section-holders can be kept clean. It would certainly be a nice thing if they could be taken off the hive looking as clean as when put on; but I have some doubt whether it will ever be accomplished—that is, so that every section shall be entirely clean under all circumstances; for I've seen many so clean that you'd have to look very close to see that bees had ever been on them.

The only way I know of that you could have sections so that it would be impossible for bees to put glue on them would be to have something solid fitting down perfectly close upon them, and of such weight that bees could not raise it. You can have cloth to fit down close; but the bees can raise the edge, and then little by little they'll raise it more, and you'll have a big pile of bee-glue on top of your sections. You can have what are sometimes called "pattern-slats" over your sections, but it's simply impossible to have them fit so close that the bees can not squeeze glue into the cracks.

On the whole I suspect they are better off with nothing over them, allowing the bees a space above. In the early part of the white-honey harvest, bees don't seem to have the mania for plastering everything with propolis that they develop later. They seem to feel it their duty to glue only cracks and angles: so at such times, if we have one super with nothing but the air-space cover, it will come off clean, while another covered with either cloth or wood will have at least the edges daubed. Later in the season they will varnish a smooth surface

with propolis; but is it desirable to leave sections on then? Possibly, to some extent. But I suspect that a good deal of the daubing of the tops of sections comes from leaving them on the hive when they ought to be off. A section filled and taken off early will be cleaner with nothing over it. If left after the harvest is over, it would be better for a piece of wood over it.

Marengo, Ill.

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#### M. B. HOLMES.

#### BIOGRAPHICAL SKETCH BY W. S. HOUGH.

The subject of this sketch, Mr. M. B. Holmes, was born in the township of Bastard, Leeds Co., Ontario, July 29, 1853, and is of Irish descent. He commenced bee-keeping in 1882, not by his will and consent aforethought, but by a fortuitous incident, a swarm of bees coming to him in the harvest-field in 1881. [Is it a dream? Was it A. I. Root who, when a boy, had a swarm come to him at a similar time and place, and who gave Pat 50 cents to hive it, thus forming the nucleus of a great and successful apiary?]



M. B. HOLMES.

Mr. Holmes, being of a thoughtful turn of mind, acted on such information as he had time to acquire in the spare hours from the duties of superintending his farm. In six years he had 60 colonies of bees besides considerable sales and 11,000 lbs. of extracted honey. He became a member of the Ontario Bee-keepers' Association in 1884, and has been a director in that organization since that date.

Mr. Holmes, with commendable frankness, admits that reverses came in the shape of severe winter losses. Happily, in this case it was no disaster—simply a reverse, as it could not affect him financially. By carefully working the nucleus system (imported nuclei) he soon regained the lost ground, averaging in 1893 70 lbs. per colony.

I earnestly wish, Mr. Editor, that all would confess their losses in the apiary, and try to explain the cause with the same candor Mr. Holmes has done. It would save many from similar mishaps. But, unfortunately, some bee-keepers have the bump of self-conceit so highly developed that they can't do this. I know a man who would rather confess to doing a mean thing than admit he made a blunder in the apiary. Do you know any such?

Mr. Holmes, actuated by disinterested motives, and at his own expense, attended the session of the committee named by the O. B. K. A. to wait on the Dominion Government at Ottawa concerning the sugar-honey frauds, and to aid, if possible (through the influence of his friends in that place), in securing the passage of a pure-honey bill. He attended the sessions of the North American B. K. A. when it met in Toronto and Brantford, and anticipates a rare treat when it meets again in Toronto.

Ontario sent about 40 tons of honey to the Colonial and Indian Exhibition in 1886, of which he contributed one and a quarter tons. Mr. Holmes has a farm of one hundred and seventy-six acres, four acres of which are under orchard, with commodious buildings, on one side a view of Upper Delta Lake; on the other may be seen a low range of Laurentian hills with dark wood-shaded ravines—a pleasant country home. He owns and lives at leisure in a good brick residence in the handsome and thriving village of Athens, and keeps bees for the pleasure and instruction they impart, as much as from other motives. He is superintendent of the fine Sabbath-school here and an exemplary class-leader. He is also member of the village council, likewise president of the local bee-keepers' association. Gentle and unassuming in manner, he has an unsullied reputation, and holds the respect and enjoys the good opinion of all who know him.

W. S. HOUGH.

### HIVE-NUMBERS.

GOOD SUGGESTIONS ON HOW TO MAKE; PAINT TO USE, AND HOW TO LETTER.

By F. A. Gemmell.

Mr. Editor:—I have just finished reading your issue of July 15th, and observed the article of Mr. G. F. Hyde, of San Diego, Cal., also the one of Dr. Miller, in regard to hive-numbers, and what they should be made of, etc.

I never was an advocate of the number being permanently attached to the hive, although I have practiced numbering them, and therefore take the liberty of calling the attention of both those gentlemen, and any others who may think it a good thing to use such, to a sample I now send you, which I have used for some years past, and which has proved not only convenient, but serviceable as well. They are, as

you observe, made of tin, painted on both sides, although one side is all that is really necessary to paint, except that the side next the hive, when not painted, is liable to rust, and at times soil a nice white painted hive. You will observe I have painted the tin a red color. This was partly on account of convenience and partly on account of looks, as it is immaterial what kind of paint is used, so long as a good contrast is made between the lettering and the background. When I use a dark background I always use a white letter on the same, and *vice versa*. I have tried both ways, and prefer the dark background, as I can use white lead for the figures, and it is easier applied with the brush on the stencils than the black or dark-colored paint, and white lead can be purchased thick, and it then needs little if any thinning or diluting. I first cut the tin into strips most suitable and convenient, as to economy, and then paint them two coats of thin paint, as two thin coats on tin appear to me more suitable than one thick coat.

As soon as dry I use a short stubby brush for applying the paint through the stencil, the latter being cut out of very thin brass. I do not make any claim as to cheapness, by making these hive numbers in this way; but I do know they are convenient and serviceable, as they are only temporarily attached to the hive by a small screw having an eye, so that they can be readily secured by a few turns of the naked fingers. One thing is certain—that, after the stencil numbers are purchased, they will last for years in making large quantities.

Stratford, Ont., Can.

### MANILLA TAGS FOR NUMBERING HIVES; A SEVERE TEST.

I see in GLEANINGS, July 15, pages 561 and 564, articles on tags for hives. Now, I do not wish to go against Dr. Miller or Mr. Hyde, but I will tell you what I have seen. I have seen manilla cardboard marked with common writing, and also stencil ink, nailed on to water butts and casks, and then a good coat of linseed oil given them. They would be exposed on deck of a sailing ship in a voyage around Cape Horn, of five months' duration, in the winter months. Now, my opinion is, that a card of that kind on a hive would last for years:

GEO. L. VINAL.

Charlton City, Mass., July 28.

[Well, well! perhaps I was a little too fast in concluding, with Dr. Miller, that manilla tags would not do for hive numbers. Dr. M. will please notice that I am considering favorably the manilla in preference to tin. Certainly no severer test could have been applied than the one you mention. Along in the line of this we all remember of having seen similar tags tacked to the side of box cars, and other places, that have probably been there for months and perhaps years. If soaked in linseed oil they will stand any reasonable requirements on the hive.



Yes, here is another one containing some suggestions as to the shape and size of cards. They are all good, and we will try to keep them in mind when preparing cards for another year. Before going ahead we want to know exactly what would be the best and most suitable tag for this purpose, whether of tin or manilla.—  
ED.]

I see from last issue of GLEANINGS you propose to issue number cards for numbering hives. I have long been in need of such cards to more successfully prosecute my work in my apiary. I am pleased with your proposition to furnish a suitable card. There may be two forms of cards needed—one to be firmly attached to the hive, and the other movable. The figures should be at least one inch in height, on a ground with enough contrast to be easily seen several steps distant. I would suggest the hanging moving card to be  $2\frac{1}{2}$  inches square, printed with one-inch figures, to hang by one corner as per sample, of such colors for card and figures as you think best. The stationery card is to be same size, and printed with one-inch figures, etc., as per sample, to be tacked to the hives at corners. Of course, the movable card can be used also for a permanent card by tacking at the corners of the hives, doing away with the extra card, making one card do for both purposes.

J. W. WINDER.

New Orleans, La., July 22.



#### UNITING BEES.

*Question.*—As the season of 1895 has been rather unpropitious for the bees in this section, where only white honey is the source of the supply, I find that my colonies have not the necessary number of bees for winter, nor a sufficient amount of stores; hence I ask what I had better do under such circumstances.

*Answer.*—In all localities where there is any promise of fall flowers yielding honey, the better plan is to wait with the hopes that they may give the bees a chance to build up as to bees and honey; but where there is no prospect of any such yield, as in many localities with which I am acquainted, the sooner the bees are attended to the better. If the colonies were strong in bees, the question might arise whether it would not pay to buy sugar and feed them, so as to have a greater number next spring; but where colonies are both light in bees and in stores there is only one correct solution of the problem, which is to unite the bees till all are strong; and then if stores are still lacking they may be fed. If we are to unite our bees, the next question which will arise is, how best to do it. There have been many plans given for

doing this, some of which are too laborious to be tolerated, such as moving colonies little by little each day till they are brought together, carrying them to the cellar for a few days, etc., the advocates of these plans claiming that, by their use, none of the bees will return to their former location; yet I find that the more simple plans do just as well where a little precaution is taken by way of removing all signs of the former home from the old stand. The two plans which I use, and those which have always worked well with me so far are as follows:

Having decided that certain colonies are to be united, the first thing to know is, which of the two or three, as the case may be, has the most valuable queen. Having ascertained this, I hunt out the poorest one and kill her, then leave them from two to six or eight days, according to the weather and pressure of business. When they are to be united I take the hive or hives, from which the queen has been killed, to the stand of the one they are to be united with. I now select from each hive the frames having the most honey in them, to the number I wish to winter them on, and set them in one of the hives, alternating them as they are set in the hive. In moving the bees they are first smoked thoroughly from the entrance, when they are jarred by placing the hives on a wheelbarrow in no gentle manner, and wheeling them rapidly to the place they are to stand, first having confined the bees to the hive, and doing the whole on some dark cloudy day when the bees are not flying, which causes them to remain on their combs much better in handling them than would be the case were they not thus disturbed, so that, in the process of uniting, very few bees take wing in comparison to what otherwise would, and these few are so bewildered that they immediately go with the others into the new hive, or united colony, as the fanning of wings and hum of the bees calls them, saying, "A new home is found." Having the hive full of combs containing the most honey, I next shake the bees, which are on the remaining frames of combs, off at the entrance, taking one frame from one colony, and the next from another, and so on, so as to mix the bees up as much as possible. When all the bees are inside of the hive, the work of uniting is done. Remove the hives, bottom-boards and all, from the stands occupied by any of the united colonies previous to this, and no loss of bees will occur. What few bees go back to the old stands upon their first flight after this, return after finding their old hives gone; also the mixing-up and jarring process spoken of above causes them to mark their location anew, the same as does a new swarm, or when the bees take their first flight in the spring.

The other plan I use, mostly later in the season, and with smaller colonies, taking the

queens away as before; but when doing this I take all the combs from the hive but the two or three which contain the most honey, the brood all having hatched by this time, and spread these combs about an inch apart, setting them out about two or three inches from the side of the hive, so that the bees may all be clustered on these combs, instead of hanging to the sides or any part of the hive. The hive which is to receive the bees and combs is also to be prepared beforehand, by taking away all the combs but three or four, those being left being the ones having the most honey in them, said combs being placed close to one side of the hive. Having all thus fixed I wait as before for the colonies thus fixed to realize their queenlessness, and till a day occurs when it is from five to ten degrees colder than is required for bees to fly, when I find them all clustered compactly between the spread-apart combs, something as they are in winter. When the right day arrives I light my smoker and put on my veil, for in the following plan described we can not use the hands at times to get off a stinging bee, should one suddenly sting near the eye. I now go to the hive having the queen, and uncover it, giving the bees a little smoke to keep them quiet; and, leaving the hive open, so that I can set other frames right in without hindrance, I go to one of those from which I took the queen, blowing plenty of smoke in at the entrance while I uncover the hive, when more smoke is blown over and around the frames from the top. Quickly set down the smoker and place the two front fingers between the two first frames near their ends, the large fingers between the second and last frames, while the third and little fingers are placed beyond the third frame, when, by closing up the thumbs and all the fingers, the frames with the bees all clustered upon them can be lifted out of the hive at once and carried to the open hive, where they are to stay, and sit down in it all together, close up to the frames of bees that are in this hive. I now go back and get the smoker, and blow enough smoke on the bees to keep them down while I am arranging the frames as I wish them, and adjusting the division-board, if one is needed, fixing all for winter without having scarcely a bee take wing. Should any colony be so strong in bees that a few come out on the sides of the hive, this hive can be placed immediately over the united colony before fixing the frames, when, with a brush and a little smoke, they are easily got into the hive below. Having all in and the hive closed, clear away all that looks like home from the vacated stands, as in the first plan, and the work is done. Both of these plans are very simple, and accomplish just what is desired, the latter being a little the easier where the colonies are small enough so that the bees can all cluster on three combs well spread apart.



#### SWEET CLOVER ON THE INCREASE.

Although the early rain failed, the latter did not, and July was a month of downpours and showers, and nature rejoices. Sweet clover has been on the increase in this vicinity for a score of years, and has taken possession of the bluffs, gravelly knolls, ravines, gutters, sides of less frequented streets, until its fragrance is everywhere. It is now blooming luxuriantly, and bees are daily working upon its delicate racemes. White clover, dandelions, vervain, and a plant known as butter-and-eggs, are blooming abundantly. I've not seen bees at work on any of them this season.

Bees commenced to swarm Aug. 1, and have their combs built out white. During the drouth I noticed a colony that was weak; but as workmen were busy erecting a house on a lot adjoining, within a few feet of them, I thought it prudent not to disturb them. A swarm came out, and, without clustering, went directly into that hive and were cordially received. How did they know that they were wanted there?

Peoria, Ills.

MRS. L. HARRISON.

#### LIGHT HONEY CROPS; SWEET CLOVER.

The surplus-honey crop in Northern Illinois will be a light one this year. This is owing mainly to dry weather during the present year and for several previous years. White clover has been virtually destroyed by the dry weather. Unless we have a change in the weather, there is no use of depending on the white clover any more as a honey-plant.

Notwithstanding the loss of white clover, I think I shall be able to report an average surplus of extracted honey this year, of not less than 50 lbs. per colony, spring count. This surplus is mainly from basswood and sweet clover—about as much from one as from the other. This is a small average, as I ought to be able to report an average of at least 100 lbs. surplus per colony from sweet clover alone. I think I could do this if I could control the crop. The crop, as a honey-plant, is destroyed in this locality in two ways—by mowing and by pasturing. The city authorities here mow it down along the streets. This, of course, they have a legal right to do. But as they do not confine their work to sweet clover alone, we honey-producers have no right to complain. And the farmers are busy also in destroying sweet clover as a honey-plant. They have found out that their cattle will eat it; they therefore turn out their cows to pasture upon it when they are short of feed on their farms. They hire a boy to herd their cows and keep them within proper bounds. The cows will eat the plants even



after they come into bloom, and when from 4 to 6 feet high. Some farmers make it a practice to cut it before it comes into bloom, and haul it to their hogs. The plant is then so succulent that hogs will eat it readily. Those who have used it in this way regard it as of great value for hogs alone. There are some farmers here who contend that it will pay to grow sweet clover as a regular farm crop, especially for hogs and cows. If we have many more dry summers they will be driven to it, for sweet clover is one of the crops that will make a satisfactory growth without regard to dry weather. This year, where the pastures are literally burned up, the sweet clover close by is as fresh and rank in growth as could be desired. I have measured individual plants this year that were over eight feet high, and I have seen acres of it from four to six feet high in beds of gravel where nothing else seems to grow.

M. M. BALDRIDGE.

St. Charles, Ill., Aug. 5.

**FISH & CO.'S HONEY QUOTATIONS; THE GREAT IMPORTANCE OF SHIPPING-CASES WELL MADE.**

*Mr. Root* :—In your issue for Aug. 15, p. 618, Dr. Miller says that strictly fancy comb honey is quoted by one firm at 12 to 13, while another firm, which is S. T. Fish & Co., say, "We anticipate a price of 14 to 15 cts.," and he adds, "I anticipate they'll anticipate a higher price than that before they are flooded with consignments this year."

We believe that Dr. Miller meant no harm to us when he made the above statement; but some people may infer that we are not entitled to having consignments. We advertise in your paper, and we doubt whether you would permit us to advertise if you did not think we were a responsible firm; and we want to say right here, that, any time any man wants to sell us honey, we will pay him the cash for it; but there are times when it is impossible to buy honey, owing to quality and many other arguments that we could advance.

Since you give us this space we want to say that one thing seems to us must be improved in order to further the success of the bee-keeper financially; and that is, they must use a proper package for comb honey. They should not use any thing larger than a 24-lb. section-case, and this case ought to be made by the A. I. Root Co. or some firm as capable. We saw some honey from California the other day, that was sold as fancy, that is in a case that makes the honey second grade, as the case is too large for the section; the wood is not of proper material, and is not properly put together. Advertise your cases to everybody, and see that everybody uses them.

One man sent us in some cases painted drab in color. He was under the impression that this would hide the unplanned boards, and might shield the thick wood and heavy nails that he

used. If this honey were in a proper package we could get 15 or 16 cts., while to-day any one can have it at 13 to 14 cts., as it is not in proper shape, and will not sell alongside of fancy.

We received our first consignment of new honey to-day from George S. Scott, Wadena, Ia., put up in 12-lb. cases, three sections being shown through the glass. The shipment weighed 791 lbs., and we sold it at 16 cts. This is as pretty a package of honey as we have ever handled, and we could sell carloads of such goods on arrival, at the outside market price.

Later on, if you care for our opinion we can tell you what we think of the future outlook of the honey situation. Now, we can not tell; but we certainly expect to sell our receipts as per our quotations in your Honey Column, and we must anticipate the price if we had no receipts, and could not report actual sales at the time we sent you the quotations.

Chicago, Aug. 24.

S. T. FISH & CO.

[We should be glad to hear from S. T. Fish & Co. further. We believe they are not only reliable, but alive and active to the interests of the pursuit. It would be well for those bee-keepers who think "home-made" stuff is "just as good, and cheaper," to ponder over carefully the third paragraph above. "Penny wise and pound foolish" fits the case exactly.—Ed.]

**REDUCING STOCKS, AND UNITING.**

I have about 50 hives of bees, and do not wish any more increase. About half of the queens are mismated. 1. Would it be a good method to reduce to one-half by killing the mismated queens and uniting the hybrid bees with the Italians, and using the empty hives and frames next swarming season? 2. Would it be better to unite in the fall, or early next spring? The colonies are strong; winter loss is nominal here.

R. F. RITCHIE.

Rumford, Va., Aug. 8.

[1. You can do this way providing you wish to reduce stocks; but your hybrids may kill some of your good queens after uniting. 2. Unite in the fall.—Ed.]

**ANOTHER "COLOR VICTIM."**

. Another "color victim" wishes to correct one of the errors of last season. I paid a good price for a large noble-looking queen that would be a hummer in a one-frame hive. Her bees are very pretty, resembling some variegated tropical bugs; but I have pinched their mother, and her domain shall be given to one of your queens. I have had my "beautiful" experience; and if you send me a good serviceable queen, raised from an *import*, I care not what color she or her offspring displays.

New Matamoras, O., July 9. W. M. GRAY.

**AN INTERNATIONAL BEE-KEEPERS' CONGRESS.**

It is proposed to hold an international bee-keepers' congress on the 4th and 5th of December, in Atlanta, during the Cotton States' Exposition. The call has been signed by most

of the prominent bee-keepers in the Southern States, including Texas. At this time of the exposition the railroad rates will be at their lowest, the work in the apiary for the year will be ended, and the bee-keeper will have a grand opportunity to meet and mingle with his brethren in convention, to shake hands, to become acquainted, and talk over questions of vital importance to the success and prosperity of his pursuit. This gathering of bee-keepers will know no lines of latitude or longitude, but will take in the whole American Continent. It is hoped that every live and wide-awake bee-keeper will make his arrangements to meet his brethren on the above days. Subjects of the utmost importance to the continued success of this industry will come up for discussion, in which every bee-keeper in our country should feel the deepest interest.

All the bee-journals and agricultural papers are most respectfully requested to notice the time of this meeting. DR. J. P. H. BROWN.  
Augusta, Ga.

#### BEST HONEY-FLOW FOR YEARS.

We are having the best honey-flow here that we ever had. It commenced about July 8, and still continues. From one colony (the best one I have) I extracted, July 19th, 70 lbs.; and on the 28th of July, from the same colony, I extracted 80 lbs., and in two more days I shall extract about 80 lbs. (16 L. frames) more from them. The honey is very white, gathered from white clover and alfalfa. J. A. SMITH.  
Heber, Utah, Aug. 6.



L. R. D., Kan.—Yes, queens have stings, and sometimes they use them, but only on other queens, and not on bees. In very rare instances they have been known to sting human beings.

C. M. I., Ala.—The instance you relate, of two queens living together in one hive, one the mother and the other the daughter, is quite a common one. As you surmise, the old queen will probably be superseded in a month or so.

J. B. W., Ga.—The longest comb that has ever been made in bee-trees, that I remember to have seen reported, was 9 feet. We have had frequent reports of where they have been 6 and 7 feet long; but even these lengths have been rather extreme.

W. T. T., Mich.—If you desire your bees to swarm, and they refuse to do so, it is probably because the honey season is now about over. I would advise you to practice what is known as "artificial swarming," as described in the A B C of Bee Culture.

F. H. F., Tenn.—The dead drone brood that you sent is evidently immature, and it has been pulled out of the cells by the bees because of the sudden stoppage of honey. If all their worker brood is all right, and drone brood only is found at the entrance, this would be the explanation.

I. S., Mich.—The best way to ship honey is to put it up in large crates, ten or a dozen cases to the crate. The bottom of the crate should contain straw, so as to cushion the cases; and handles should stick out of both ends so that the freight-handlers can easily load and unload the crate.

L. E. A., Minn.—1. If you have honey-dew in the hive it would be well to extract it before winter, and feed the bees sugar syrup. The extracted stuff may be fed them next spring, when it will do them no harm. A better way would be to take out the combs containing the honey-dew, put in frames of foundation, or empty combs, then feed syrup. This will save the expense of extracting, and the trouble of the daub, and give you good combs of stores next spring. 2. Bees may be fed immediately after extracting, and they will repair and clean the combs up in short order. 3. The putting-back of the combs in the former order is not essential. What brood there may be in them should be placed pretty well in the center of the hive; but in the fall we usually do not like to disturb the position, because the bees make what is known as a sort of winter-nest—that is, empty cells massed through the center of the brood-nest, for the bees to cluster on. 4. There is no way of discriminating between beet and cane sugar—at least, on the part of the ordinary bee-keeper. Our own experience shows that one is about as good as the other as a winter feed; but over across the water, a few think the cane is far better. We never found it so.

L. N., Mo.—1. Anywhere from 50 to 75 colonies usually makes enough for one yard. Some localities will support 300 or 400, but they are very scarce. 2. Bees fly on an average about a mile and a half, although they will often go farther, say two miles or two miles and a half; but so long as there is plenty of forage they will not, as a rule, go farther than the first-named distance. Instances are on record where they have gone as far as 7 miles over bodies of water or across a barren stretch of land. 3. One man can not usually take care of more than two or three yards of 50 or 75 colonies each, and even then it is advisable to have a little help during the busy time of the year. 4. A good colony, depending upon the season and the man, will make anywhere from 5 lbs. to 75 lbs. of comb honey; but during the past dry seasons there has been hardly an average of 25 lbs. in the North. Perhaps 25 or 33 per cent should be added to the foregoing figures when extracted honey is under consideration. 5. A good man with a thorough understanding of the business



may increase his colonies by artificial swarming or dividing in connection with feeding, 300 or 400 per cent; but practical bee-keepers do not care so much for increase as for keeping strong what colonies they have. 6. We would advise you to transfer after the honey season. This will give the bees plenty of time to get thoroughly settled in their new quarters.



THE TORONTO CONVENTION, SEPT. 4, 5, 6.

THERE will be representatives there, of course, from the Home of the Honey-bees.

THIS issue numbers 15,000. We shall be sending out a large number of extra copies again during the fall, and our advertisers should not fail to take advantage of these big editions. No more will be charged for advertising rates.

THE fine engraving of crimson clover, on page 658, is a decided improvement in the way of finish over the original; and yet our engravers have followed the details exactly. So far as I can discover, from live specimens we have, the picture is a true representation of the plant. I anticipate that, by another season, there will be hundreds and perhaps thousands of bee-keepers who will be growing it.

THE RAGE FOR GOLDEN BEES STILL ON.

THERE is still, I understand, a large demand for five-banded queens, or, rather, queens that are supposed to produce bees having five bands. Why this is so, in view of their generally reported bad behavior, I can not say, unless it is because bee-keepers are so blind that the *only* desirable point they *can* see in a queen is her ability to produce golden bees. Take them as they run, the average bee-keeper will be far better off without them. I certainly have no antipathy toward them, and certainly none toward those who breed them; but I feel sure they (the yellow bees) will soon go the way of the Cyprian and Holy-Lands that for a time, as our older readers know, had just as great a rage in their favor as the five-banders; and yet for the last few years no one has advertised the Eastern bees, nor does any one know of any breeder who has them for sale.

HOW TO PUT ON BEE-ESCAPES WITHOUT DOING HEAVY LIFTING

is, perhaps, a kink not yet discovered by some. It is easy when you know how. With a screw-driver or strong putty-knife pry loose one end of the super from the brood-chamber. Lift it up just a little way and blow in a little smoke.

With the escape-board right handy, lift up with one hand one end of the super, and tilt it to an angle of 45 degrees. Now slip the escape-board under as far as you can; let the super down on to the board, and then with two hands crowd the board itself squarely over the hive, and finally, in like manner, the super squarely over the escape. This is far easier than lifting the whole super off bodily, setting it on the ground if you can find a place, putting on the escape-board, again lifting the super off the ground and setting it very gently and squarely over the escape-board—if you can. I tell you, it is not easy to hold a hive-super, weighing perhaps 100 lbs., suspended in mid-air, and let it down *easily* and *squarely* over the board. The plan I gave first is, oh so much easier! Try it, if you have not yet learned the knack of it.

DIAGNOSING BROOD-NESTS WITHOUT HANDLING FRAMES.

BY the way, if you will not handle frames, did you ever notice that you can judge of the amount of brood a colony may have, by looking at the *under* side of the brood-nest, far better than at the top? The line of honey along the top edge, when bulging out, will often obscure any brood there may be beneath; but not so in the case of the bottom. There are fewer bees there; and the brood, if built down at all, will usually extend down close to the bottom-bars. "But," you will say, "I do not like the fun of lifting hives up to see." Very well, don't do it. Do not stop to pull off the cover, but just pry the hive loose from its bottom-board, and lift up *one end* and peek under. It can be done very quickly, and oftentimes a very satisfactory examination can be made. But when I want to make *sure* I lift off the cover and pull out the center frame, then I have virtually seen the whole hive. But perhaps the other plan may commend itself to some.

A GOOD SUGGESTION—REDUCTION OF MEMBERSHIP FEES TO THE UNION.

I LIKE the suggestion of J. W. Rouse, in the *American Bee Journal* for August 15th, on the subject of the Bee-keepers' Union. After commenting on the proposed reduction of membership fees, he says:

I have another plan to offer, which is, to reduce the membership and annual dues to 25 cts., empowering the secretary to draw on each member for 25 cts. more per year if found necessary. It seems to me this proposition should secure thousands for membership. Now, while, if this plan should be adopted, in making a call for the second 25 cts. some might not respond, the by-laws could be the same as now—where one failed to respond, the benefits to be derived from the Union to cease in his behalf after so long a time after payment of dues should cease, or have failed to be paid.

It seems to me that this is entirely feasible and practicable; and whether the Union be

amalgamated or not, it would be well to carry out the idea. We need the power of *numbers* as a moral backing, and this, it seems to me, would insure the very thing we most need.

#### THE AMERICAN BEE JOURNAL.

I HAVE sometimes wished that Bro. York were not so good a friend of mine. Why? I have often read with interest the good things in his paper, and have felt like commenting on what he and his correspondents have said; but somehow I have felt that, if I did make such comments, a few (the anti-admiration-society fellows) would say I was doing it to pat "Bro. George" on the back. But really I do not know that this is any *good* reason why I should keep back anything that I wish to say, if it is deserving.

Well, it seems to me the "Old Reliable" grows better and better as it grows older; and in its 35th year, and in its latest number, we find more good solid matter in it—practical, helpful matter—than at any time in its previous history; and in saying this I do not wish to disparage its past. The articles are well selected, sifted, pruned, and paragraphed. The Question and Answer departments, by Dr. Miller and others, are good. All through I think I can see the evidence of hard, painstaking editorial management.

I shall not attempt to make any sort of review of this or any previous issue; but you know that I said there were several queen-breeders who would or were about to give up the breeding of five-banded queens. Among others that I have mentioned, here is what one of them has to say on page 536, regarding the behavior of some of the cream of the goldens. I give it right here because it seems to be quite in line with what others as well as myself have said of these bees in general of late:

#### ANOTHER HARD RUB FOR THE FIVE-BANDERS.

I obtained my first five-banded bees from L. L. Hearn, but in a very short time I learned that G. M. Doolittle had given Mr. Hearn his start in these bees. Mr. Hearn's bees proved to be unprofitable, and so the next queens were obtained from the author of "Scientific Queen-rearing." The first queen I obtained, Mr. Doolittle had named "Dandy," for which I paid \$6.00. I introduced her to hatching brood, as the weather was warm, and every thing seemed favorable for a colony of "goldens," as I added a few more frames of hatching brood; but what was my surprise in a couple of weeks to find this fancy queen failing. I then put her into a nucleus and kept her colony weak until autumn. Early in October I put her nucleus into a chaff hive, and gave her plenty of good combs with nice sealed honey, and brood hatching, from a good hearty colony; and, as I knew the bees would not expect much from their queen during the winter, I left them severely alone until early in the spring.

On opening the hive I found a young queen and "Dandy" still at large in the hive. I lifted out a comb with "Dandy" and adhering bees, making a

weak nucleus. In three weeks "Dandy" had disappeared and three queen-cells were started. These were given to a strong colony, made queenless, to feed and complete the cells. Mr. Doolittle sent another to replace her. That was very kind in him; but the second one never filled more than three or four Langstroth frames with brood; and from this queen, and the three reared from "Dandy," I reared 29 queens, nearly all of which I sold for \$2.00 for choice, and \$3.00 for the selected or very best. Some of these queens were sent to Canada, and some to Pennsylvania, some south and west. Some of the old readers will remember that I sent the samples of bees to Thomas G. Newman, then the editor of the *American Bee Journal*. The bees sent showed the sixth yellow segment. Of course, these were picked bees. So far as I can know, and have knowledge, not one of these reared fancy queens produced bees that were hardy enough to come through the winter without adding black stock.

My next breeder was a very yellow one from J. D. Givens, of Texas. This queen kept two or three combs fairly stocked with brood and eggs for about three months, and then was superseded by the bees. I keep bees partly for pleasure and study, and took a fancy to the yellow color; but now I am about dead to the "goldens" though it was a hard death to die.

Last autumn I ordered one more of these queens from Mr. Wood, of Massachusetts, and one from the famous breeder of these bees in Maryland. I gave each plenty of combs with late-hatching bees from hardy blacks. These were packed in a long chaff box containing 11 colonies. One of these colonies died early in the winter. The other was about fizzled when I unpacked them in the spring. The queen was yet alive, and a few black bees, but not a single yellow bee lived through the winter.

But the greatest fault I find with them is the unprofitableness of the queens. I never had a colony of them to get populous enough to get the swarming-fever. When these queens mate with hybrid drones, they are some better; but, all in all, the "goldens" ought soon to be a thing of the past, unless they can be improved.

W. P. FAYLOR.

#### TAKING MORE THAN ONE BEE-JOURNAL.

In our last issue I made such extended comments on the *Bee-keepers' Review* that I was really afraid the other journals would think I could see no merit elsewhere. How often have I felt that, instead of making extracts and comments, I should like to publish over again whole articles of the other bee-papers! But that is impossible; but it is possible, with a great majority of our readers, probably, to make a selection of at least three, and buy them at club rates. But, you say, money is scarce. When it has often happened that a single item in any one of the papers has saved the reader *dollars*, can you, dear reader, afford not to take them? Bee-journal editors can scarcely be called rivals. With hardly an exception they "bee" brethren.

#### OUR BASSWOOD-YARD, ETC.

OWING to ill health and lack of strength to take my usual wheeling-tours this summer, I have been unable to give the out-yard in our



basswood-orchard, run for extracted honey, very close attention; and our apiarist was too busy with the home bees to give very much of his time. The consequence has been, that the out bees have been somewhat neglected, as will appear later on.

On the 21st of August, feeling much better, and strong enough to push a wheel, I took a run down and looked over the bees. Prior to this during the basswood bloom our men had gone down once or twice and put on extra stories, so that there might be room. They were not visited again until I went on the date mentioned; and as I knew they had been storing honey rapidly at the time of putting on the supers, I was not surprised to see the same pretty well filled then.

As I pulled up several supers, and found them crammed full of honey, and saw here and there burr-combs built between the two-stories, and on top of those thick-top-bar frames at that, the thought came to me, "There, W. Z. H. would have the laugh on me if he could be here now, after what I wrote about the scarcity of burr-combs over thick top-bars, on page 636." This was something I had never seen before, and I said to myself, "No, I won't be laughed at yet; there is a cause for it." And, sure enough, in the very instances where burr-combs were built between the two parts of the hives, I discovered that the upper stories were crowded to their *utmost* capacity; no, there was not one cell of room left. What else could the poor bees do than to chink in burr-combs in the spaces they are ordinarily supposed to leave clear? You see the facts are here: The apiary, as I have previously explained, had been neglected, and those colonies that had burr-combs had not been given sufficient room in the first place; that is, they greatly exceeded the expectations of the men who put on their supers in the first place. In an apiary properly cared for, no burr-combs would have appeared at all; indeed, there were none — absolutely none — in those hives that were not "clear crammed jam full."

Of course, every bee-keeper knows it is a serious waste to let hives get so full of honey, to say nothing of the tendency to encourage swarming and its attendant loafing. I do not therefore think what I said in regard to the burr combs in question was too strong in apiaries that are *properly cared for*;<sup>\*</sup> and when the bee-keeper himself keeps ahead of the bees, as he always should do, that intolerable nuisance, burr-combs, is done away with.

#### THOSE FIVE-BANDERS.

In the way of honey, the three-banded leather-colored bees were away ahead: and, oh how much pleasanter to handle! Moreover, the

yellow fellows nosing around in a most disagreeable way, trying here and there to get a sip of honey while I was making an examination.

By the way, we had a bad robbing-spell, I am sorry to confess, at our home yard a few days ago. This is, you know, devoted to queen-rearing; and it seems one of the small nuclei failed to make the proper defense, and before we knew it there was an uproar. It was a most noticeable fact that the leaders in this robbing were the *extra-yellow bees*, and there are only three or four colonies of them now in the whole apiary of over 300 colonies and nuclei. Our Mr. Spafford, who has charge of the home yard, says he wants no more of them, and I am sure I don't; and as a matter of fact we have been getting rid of them as rapidly as possible.

#### BEE-ESCAPES.

I had a good chance to test the relative merits of the Porter and the Reese escapes. I lifted up the supers, put the escapes on that afternoon, and two days afterward our men called down with a horse and wagon, followed a little later by your humble servant. I was very anxious to see what the escapes would do; and after two days I was a little surprised and a little disappointed to see in some cases that the bees had not all evacuated. But it was noticeable that the Porter gave us the cleanest supers. A little smoking-down finished up the job. The honey was taken off without removing a single frame. The escapes have on previous occasions worked a little more promptly. Why they did not in the present instance, I do not know, unless it was that the colonies were extra strong. In all such instances I put on a super with empty-combs or foundation, to afford them clustering-room.

#### LARGE COLONIES FOR HONEY.

As has been previously the case, the large colonies of two and three eight-framers did altogether the best in honey. Colonies occupying two eight-frame stories generally filled both of them. In some instances they filled two stories, or a story and a half, with surplus extracted honey.

#### HALF-STORY EXTRACTING-SUPERS.

I was greatly pleased with the working of these supers. They were easy to handle; *i. e.*, to lift, and the queens kept clear of them. In some cases the queens went into the full-depth extracting-supers, but not in one instance did they go into the half-depths; but the bees themselves occupied the one as readily as the other. In fact, they just filled them with honey; and, oh how much pleasanter it was to lift the half-depths, one at a time, to put the bee-scapes under!

It may be well to remark in this connection, that these supers had wide top-bars, and, of course, the queens did not seem inclined to lay

<sup>\*</sup>Are not all the reported cases of burr-combs over thick-tops due to expensive and wasteful overcrowding?

in one or the other with the divided space. Our extracting-supers are not made for brood-chambers, and are not intended for that purpose.

#### EIGHT VERSUS TEN FRAMES.

There is just one point I want to emphasize again in regard to this discussion. Suppose we admit, for the time being that large hives are better than small ones. I for one would not essay to lift any thing heavier than the eight-frame hive when it is full of honey. I have "broken my back" in lifting such full of honey as it is, and I never want to handle larger brood-chambers. While some people may be strong enough to lift and handle ten and twelves all in one story, I am sure life is too short for me to attempt any thing of the kind so long as two eights accomplish the same result with the (to me) indispensable advantage of being able to handle them one at a time.

Why, when we essayed to carry those single-story eight-frame (full depth) full of honey to the wagon it was all two men could do comfortably, and not very comfortably either, you would say, if you could have seen them screw up their faces.

#### HUMBUGS AND SWINDLES.

LOOK OUT FOR THEM; HOW AN HONEST BEE-KEEPER WAS SWINDLED.

If everybody could read the sad stories that come to us about the failure of the honey crop, the drouth, floods, and accidents of various kinds, and the stories of the expense and trouble that oftentimes are undergone in getting only a small crop, they would surely feel as I do—that, when the bee-keeper once gets a crop of honey, he should be exceedingly careful not to let it slip through his fingers and fall into the hands of swindlers. The Humbug and Swindle department has been, I believe, rather laid on the shelf of late, especially where it concerns bee-keepers and the honey business; but I am feeling so well now I think I will roll up my sleeves and dare them—nay, I will do more than that; I will hunt them out of their holes, and hold them up to public gaze; and if I can get them behind prison-walls I shall feel happier still, even if it does cost me some money. As an illustration, I am going to give you a little story at full length.

HOW A BEE-KEEPER LOST \$67.80 WORTH OF HONEY.

*Friend Root:*—Some days ago I wrote your firm that I had sold some honey, and that the parties would send me the money on the 3d of July, when I would remit to you, etc. I waited on them until the 13th, and in the mean time wrote them for the money, \$67.80. I could hear no more from them. On the 13th I went to Memphis, having become uneasy about it. I inclose you one of their letter-heads:

**A. M. McLEOD & CO.,**

Manufacturers of and Dealers in

**ALL KINDS OF FANCY PICKLES.**

Wholesale Only.  
22 Peyton Ave.

CONDIMENTS,  
HONEY, JELLIES, ETC.

Memphis, Tenn.,.....189

When I found the place there was no business house of any kind there—only a very small cottage.

I called for A. M. McLeod, or some one of the firm, but an old grey-headed lady came to the door and informed me that A. M. McLeod was out somewhere, and would not be in, probably, before night. I then learned from a near-by grocer that I would probably find him at No. 148 Johnson Ave. I went and found a couple of young men who were very reluctant about giving me any information whatever; said he was not there. They knew nothing of Mr. McLeod's business. After much time and expense I was told to go at once to 148 Johnson Ave., and I would find McLeod there, which I did. He coolly informed me that he had gone out of business and had nothing to pay me with; that he was then at work for that firm on *commission*. I asked him what he had done with my honey. He said he had sold all of it; that a portion was sold on credit, and he had not been able to collect it. I asked what he had done with the money he had taken in, and his answer was that he had an old mother to support, and had to live off the money taken in for the honey. I showed him his letter-head and letters, and asked if he did not know he was a fraud, and was as good as stealing that amount, \$67.80, from me. To cut the matter short, I am beat out of the whole amount, and have no hope of ever getting a dollar of it. The other fellows who are in the deal with McLeod are named Greenwood. When I asked McLeod who were the "Co." part of his concern he coolly said there was no company—that he had put the "Co." to it to make it look bigger. I think they will drop the firm name of McLeod & Co., and use that of another, probably that of the Memphis Pickling and Canning Co., as I saw some honey put up with labels of that sort that I feel sure was some of my honey.

R. J. MATHEWS.  
Rosedale, Miss., July 20:

We find the above firm quoted both in Dun and Bradstreet. One of them gives the capital as "very moderate," and the other quotes blank. We promptly notified both in regard to this transaction, and have received their thanks.

One big point comes out here sharp and clear: Do not send money to anybody until you have found out from some bank or otherwise that they are reliable parties. What *they* themselves write to you in regard to their standing, business, etc., is no evidence at all unless they give references to somebody who is known. The fact that they have a letter-head goes a very little way—may be like the case above—only a little cottage out in the suburbs—no company, no capital—nothing but a miserable thieving rascal at the bottom of it all. Of course, we wrote to McLeod & Co., telling them what we should do unless they made some satisfactory arrangement at once with friend Mathews. He writes us below:

I have never heard any thing more from A. M. McLeod. I am almost positive that they are still in the swindle under the name of The Memphis Pickle and Preserve Co. I have seen a letter-head of this company at 148 Johnson Ave. Memphis. There is where I found McLeod, and I am sure I there saw some of my honey he swindled me out of, and told them so. I would warn all honey-producers to have nothing to do with them. They ordered a barrel of honey from me a few days ago, saying they wanted the same kind I had sold to McLeod & Co. I can assure you I did not send it.

R. J. MATHEWS.  
Rosedale, Miss., Aug. 16.

□ We can find so such institution as the Memphis Pickle and Preserve Co. quoted at all; so our friend's surmise is probably correct. Now, friends, we are unacquainted with the laws of the State of Tennessee; but if any reader of GLEANINGS in that State will get competent legal advice as to how to proceed, we will have McLeod where he ought to have been long ago, and furnish the money to do it. No wonder they wanted some more honey like that which he sold (?) to McLeod & Co. If this thing is not stopped, all the thieves and pickpockets in the land will be starting a pickle and honey business.—A. I. R.





A VISIT TO DUDLEY ADAMS, PRESIDENT OF THE  
HORTICULTURAL SOCIETY OF THE  
STATE OF FLORIDA.

While at Lake Dora I visited the beautiful grounds and residence of President Adams. Irving Keck told me I must see that place, sure. Friend Adams is an original enthusiast and experimenter in Florida fruits, and Florida agriculture in general. At present he is taking considerable pains to develop the idea of mulching not only plants but orange and lemon trees, and for some years has been scraping up brush, leaves, weeds, and every thing he can get hold of, to pile it up around his orange-trees, not only that he may cover the ground so as to keep down the weeds, but to keep the soil

come, and also to preserve dampness, the rich soft mold was raked or hoed up so as to cover the stump. Friend Longstreet, who accompanied me on my visit, took the liberty of pulling the dirt away from some of these little mounds, and, sure enough, there were the buds already started. When almost everybody else in Florida was lamenting that there was no budding-wood left in the whole State, friend Adams had a good stock on hand ready to use, and had many of his buds already started. He said to us something like this:

"Like everybody else, I have for years been trying new varieties of oranges; and I had just got to the point where I decided it would be worth a great deal of money to me if my orchard were reduced to four or five kinds, and those just the kinds I wanted, and no other. Providence has helped me to get the thing just where I wanted, and it has also obliged me to make a more thorough job of it than I ever should have thought of doing had not the frost made that tremendous 'move' on us; so you



RESIDENCE OF DUDLEY ADAMS, PRESIDENT OF THE STATE HORTICULTURAL SOCIETY OF  
FLORIDA, MT. DORA.

damp, and encourage the formation of nitrogen. Friend Keck informed me that Mr. Adams uses fertilizers as well as the rest, but that fertilizers were scattered all through the leaves, brush, and rubbish of all sorts. I believe this is not quite true, for the grounds are remarkably clean, and free from weeds, in the spaces between the trees where it was possible to cultivate. In fact, notwithstanding the enormous quantity of rubbish in the shape of mulching-material on his premises, every thing looked very neat and tidy. Of course, his oranges had suffered with all the rest; and hundreds of great trees, nearly a foot through, had been cut off close to the ground. The day after the freeze, if I remember correctly, he sent a telegram to California, for orange-buds of the varieties he wanted; then as soon as it was certain that a tree was dead or greatly injured, down it went, and buds were put all around on the stump, between the bark and the wood. For protection from another frost that might

see that, instead of lamenting, and counting up my losses, I can really afford to look bright and cheerful in anticipation of the nice new orchard and new fruit that I shall have in a very short time; for nobody knows how quickly a bearing grove of orange-trees may be produced with the great roots to the trees, that are comparatively uninjured."

I have before spoken of the light, airy, well-ventilated Florida homes. The one belonging to President Adams pleased me so much that I begged a photo of it, and I invite your attention to the half-tone copy shown above. I should have stated that his place was situated on one of the beautiful declining slopes toward Lake Tavares. The opposite side of the house is done off with verandas exactly like the one that faces us; and right through the center is a large open hallway where there are rocking-chairs, lounges, and every thing needed for rest (what a nice place for a noonday nap!), with no interruption to the cool breezes. If

the spectator were a little further to the right he would see the beautiful lake through this open hallway. In fact, it would be visible if it were not for the shrubbery on the left. The kitchen, and every thing pertaining to the dining-room, is on the right, as you notice; while the sitting-room, being cut off by that large open hall, makes a nice, cool, and shady retreat; and this sitting-room, or parlor, is finished with specimens of almost all the woods and trees known in Florida, not omitting boards cut from the queer corky-looking palm-trees. A beautiful specimen of the date-palm is seen at the lower left-hand corner; a smaller one on the opposite side of the picture. The veranda on the opposite side is right in full view of the lake, six or eight miles long.

Before leaving, we visited the neat and tidy barns. Of course, such barns are not needed in Florida as we have here at the North. When I asked friend Adams if he had succeeded in growing his own hay and grain, instead of buying from the North, as so many horse-owners in Florida do, he showed me samples of his feed that he had no trouble in securing in great abundance, and he says it is much cheaper than he could get any kind of horse-feed from our great grain-growing Western States. Rice is one of his favorite products for feed; and he cuts it just before the grain is fully mature, so it can be stored and fed out in the bundle, giving the animals both grain and hay at one and the same operation. In fact, our whole visit was really refreshing. You may remember that the state of agriculture in Florida at the time of my visit was such that almost any one would be considered excusable for feeling discouraged; but to find a man who saw openings for great results in almost every direction, and one who could rejoice that even the *frost* had done a great work for him, was really worth while; and the Florida Horticultural Society has done wisely in selecting such a man as their leader. One unconsciously begins to wonder, as he looks over such a place, whether it is really possible for the average man to succeed so well, even if he tries ever so hard. Well, I presume it is true that God does give special gifts to some; but I am sure of this also, that a good many people do not try as hard as they might. The longer I live, the more I am convinced that brainwork, and making one's business a constant study, both day and night, has more to do with success than almost any thing else. I see a world of people around me who stumble along thoughtlessly and indifferently. God's gifts are rushing past them in every direction. In fact, they oftentimes stumble over them; and when you call their attention to it they deliberately inform you they have not noticed or have not seen any thing of the sort which you describe. And then I think of the text, "Knock, and it shall be opened unto you; seek, and ye shall find." I see people all around me—not only boys but grown-up men—who have not any comprehension of what is going on around them. They tug away at grievous burdens. An empty wagon is going in the same direction, but they do not see it, and never will see it; and sometimes it transpires that the empty wagon belongs to the very man they are working for, and this very man is anxiously waiting for them to hurry up.

At Lake Helen I made a very brief call on our good friend G. W. Webster. In his doorway I found guavas perfectly protected through the freezes, by being simply bent down and covered with straw and leaves, and afterward with a bank of dirt. In the same way he had saved some choice variegates of the Japan

persimmons. During the previous season he had produced specimens weighing 18 ounces, and  $4\frac{1}{4}$  inches in diameter. These great, luscious fruits, without seed or core, readily sold at a nickel apiece; and a persimmon-tree will bear more fruit on a given expanse of limb than any other fruit-tree I ever saw or heard of; that is, if you hold up the branches so the weight of the fruit will not break the tree to pieces.

## OUR FOOD AND DRINK: ITS RELATION TO DISEASE.

### THE SALISBURY METHOD OF MANAGING DISEASE.

Prove thy servants, I beseech thee, ten days; and let them give us pulse to eat, and water to drink, then let our countenances be looked upon.—DAN. 1: 12, 13.

And in all matters of wisdom and understanding, that the king inquired of them, he found them ten times better than all the magicians and astrologers that were in all his realm.—DAN. 1: 20.

To him that overcometh will I grant to sit with me in my throne.—REV. 3: 21.

During the convention in St. Joseph, Mo., last October, as you may remember, Ernest was left at home to look after business, in the absence of myself and Mr. Calvert. In a very few days, however, his health failed; and from that time on he seemed to be the unfortunate victim of grip, nervous chills, or something that the doctors hardly knew what to do with. One physician after another was called; but in spite of them all he seemed to be going into a decline. Even wheel-riding did not seem to bring him up as formerly, principally from the fact that he could not stand the wind. Even a moderate breeze gave him chills, neuralgia, etc.; and when the wind was in the north or northeast he was absolutely obliged to stay indoors; and a good deal of the time he could only lie on the sofa or wait for a still day. A good many of us settled down to the opinion that it was only another phase of that terrible disease which has been called the "grip." You may remember that, for three or four years past, I have been battling with something similar a good deal of the time, no matter whether I was in California, Ohio, or even down in sunny Florida. In my case the general decision was that it was in consequence of overwork; besides, I was getting pretty well along in life; but for a young man only a little over thirty, it seemed very strange, and withal very sad, that he should, as it were, "play out" right almost in his youth. Of course, much speculating was done in regard to this, that, and the other remedy. Different localities were talked about, and various sanitariums.

As some of the clerks in the office, and one of the teachers in our Medina schools, had been very successful with what is called the Salisbury treatment, or lean-meat diet, this was talked about more or less. Perhaps I might here devote a little time to an explanation. In our little circular in regard to the water cure applied internally, occurs the following sentence:

At different times the use of water in large quantities, taken into the system by way of the mouth, has had its advocates. Dr. Salisbury has for many years been accomplishing a good deal by "feeding" his patients on *hot water*.

But it seems that Dr. Salisbury or some of his friends ran across this: for in GLEANINGS for July 1, 1891, occurs the following:

DR. SALISBURY'S METHOD OF TREATING DISEASE, AND HIS USE OF HOT WATER.

Mr. Root:—In your article, "A New Method of Treating Disease Without Medicine," in GLEAN-



INGS of March 1, there is a brief allusion to Dr. Salisbury's method, which is somewhat inaccurate. It is quite true that the doctor has accomplished and is still accomplishing much for suffering humanity, but he doesn't feed his patients on hot water. In his system the hot water is used solely for flushing the stomach and intestines, cleansing the former from slimy, pasty growths, which interfere with good digestion, and the latter from feculent deposits. To feed his patients, the doctor prescribes beef-lean steak, free from fat and gristle, reduced to a mince meat in a chopper, and then pressed into cakes or meat balls, and then broiled. According to Dr. Salisbury's theory, man is two-thirds carnivorous and one-third herbivorous; and his food should follow the same proportion. In some countries—India for example—the people, in the course of generations, have become herbivorous, and are able to live on a purely vegetable diet; but, few people can digest a purely vegetable or farinaceous diet in the United States. The doctor holds that most diseases are caused by a long course of eating improper foods which ferment in the stomach or bowels, and do not properly digest. His remedy is, first, to wash away offending and offensive matters by taking a pint or more of hot water at about a temperature of 110°, an hour before each meal, and the same interval before bedtime. Then he prescribes an exclusive meat diet, or as nearly exclusive as the patient can take it, forbidding sugary, starchy foods, and any thing prone to easy fermentation. Medicine is given, if necessary to help digestion. With good digestion the system begins to make good blood; and with a supply of good blood, all the organs of the body perform their functions well, and normal health is restored. This, of course, is not done in a day, for nature works slowly, and the result of a long course of wrong living can not be corrected by a short course of right living. In the case of serious diseases, like, for instance, consumption, it takes probably a year or two of treatment to get thoroughly well; but the improvement usually begins at once; and the end, if slow, is pretty certain.

The doctor's plan, you see, differs from the one you describe, in that it is more extensive—flushing the whole of the internal man, and not simply the colon, though the latter is good so far as it goes—and more natural.

It may interest some of your readers to know that Dr. Salisbury is an Ohio man, hailing, I believe, from Cleveland, though now living in New York, at 170 W. 59th St. E. CONNOLLY.

New York, March 7, 1891.

Our readers may remember that, in my reply to the above letter, I expressed some doubt in regard to the absolute necessity of coming down to a pure meat diet. I did it, notwithstanding Dr. Salisbury, some twenty-five years before that, brought me out of what might be called a rather precarious state of health resulting from too close application to the office.

Well, after Ernest had become a good deal discouraged, the rest of us as well as himself decided he ought to go down to Cleveland and see Dr. Lewis, who now represents the Salisbury method in that city.\* For long weeks his diet was lean meat almost exclusively; but just about when I began to fear that he was suffering, and depriving himself needlessly, especially after being reduced in flesh from 140 to 120 lbs., I noticed that he was gradually getting indifferent to wind or weather. He would even stand out in his dooryard, with the thinnest clothing on, while I was muffled up in woolen clothes and sealskin cap, with a big flannel pad across my chest, etc. In spite of all this padding and clothing, however, I could not stand the north wind. While superintending the laying of some water-pipes I caught the toothache; then neuralgia all over my face; then earache, with chills accompanying,

and I was feeling pretty miserable. He and the rest of the children, including Mrs. Root, began to suggest the old Salisbury treatment. But I dreaded even the thought of it. I told Ernest that, when I came into his home, one day, and smelled the broiling steak, so familiar in years gone by, I almost felt as if I could cry for him, if it would do any good.

Before I got over my attack of neuralgia, however, he came into our home one day, and found me leaning over a hot stove, bathing my face and teeth with physianthropic (see page 537), and shedding some bitter tears (on my own account), even in spite of myself. I told him it was just grip I got from that northeast wind. By the way, one day I noticed the thermometer registered 80 degrees in the shade, and I was bundled up as I have described, and still I was cold. "Where was the wheel?" do you ask? Well, could I have been spared to ride 30 miles or more on the wheel every day, or even every other day, I might have got along tolerably well; but there was one trouble I have frequently referred to, that even the wheel did not cure. It is a sort of chronic dysentery, accompanied by distress in the lower intestines, etc. I have mentioned one severe attack of it while I was in Florida. This latter trouble seemed to be gradually gaining ground. Now if you will pardon me for speaking so much of my ailments and troubles I will try to get on to a pleasanter theme.

Ernest urged that I should at least go and see Dr. Lewis, and have him look me over, examine my blood under the microscope, etc., and tell me what he thought. I did not propose to take the treatment, mind you, but I consented, just for the fun of the thing, to go and talk with the doctor. Well, the doctor said if my trouble went on I should soon have consumption of the bowels; or, to put it in plain terms that everybody can understand, he said that my disease was fast settling into a chronic case of "hog cholera." I do not suppose that he meant that I had been greedy in my eating. He admitted that, if I could be spared to ride the wheel, and take things easy, keeping clear of business, I might do very well without any treatment; but if, on the contrary, I would give my intestines a rest till they could be cured up, and then be careful as to what I ate, I might go on with business, and at 55 years of age be just in my prime for good downright hard work in the office or anywhere else.

"But how about the chills, neuralgia, etc., doctor?"

"These are a secondary matter—a result—a trifling thing, in fact. If you undertake the treatment we will have off that overcoat and fur cap in less than ten days."

"But, doctor, suppose the wind should be in the northeast?"

"I don't care where the wind is. In less than ten days we can have you wearing ordinary clothing."

"Why, look here, doctor, if you can get me rid of my chills and neuralgia and toothache and earache, so that I shall not need to bundle up when there is a brisk north wind, I will undergo almost every thing you say—for at least ten days, any way."

At the time, I fully intended to submit to the treatment ten days and no more; but the doctor and Ernest exchanged glances, however, and made preparations for a siege of about three weeks, as I afterward learned. The whole family were greatly pleased, and entered with much spirit and enthusiasm into the plans for getting papa well and strong. Let me explain a little more minutely right here the program that has been settled down on after

\* Dr. J. M. Lewis was for ten years a partner of Salisbury; and he said to me, but a few days ago, that, in his opinion, Dr. S. has done more than any other man to get the whole medical fraternity out of the ruts and superstitions that have for ages hindered and cramped all progress.



the past twenty-five years of experimenting and study:

You go to the butcher's and get some of his very best round steak. Wait till he has sliced off the shoulder until he gets down to where the bone is small. Tell him to cut you a slice fully an inch thick. Now remove all fat, gristle, and every thing but lean meat. Get an Enterprise meat-grinder, small size, with recent improvements. Put the lean meat through three times; and then have it cooked on any good gridiron, or even with the five-cent wire meat-broilers, to be had in every counter store. The patient is to take the meat hot, just as it comes from the fire. Season with salt, pepper, and a little butter. Decide by experiment how much you can eat and digest thoroughly, and have that fixed quantity at every meal. I began with 6½ ounces three times a day. Six ounces would have been hardly enough, and 7 ounces is a little too much. Thus you see there is no possible overloading of the stomach or digestive organs. As you progress, increase the amount gradually until you can take 10, 12, and even up to 16 ounces or more. Your meat is to be taken at *regular* hours. You probably will not forget when it is time to have your regular rations.

I soon found that my weakest spell was in the morning, because I get up a little after five and start several kinds of business before John and Ernest get around. On this account I have three ounces of beef at 10 o'clock, besides my three other rations. I go to bed at half-past 8 or 9, and sleep soundly—more so than I ever did before—until Mrs. Root wakes me at 10 o'clock. This 10 o'clock meal prevents me from getting faint in the morning before my regular meal at half-past 6. Now, please notice I do not have a crumb of bread, a particle of fruit or vegetables—no sugar, not a drop of milk in the half-cup of tea I am permitted to have with my meat. Right here I presume a part of my readers—may be nine-tenths of them—will say, "Oh! get out with your lean-meat diet to the exclusion of fruits, milk, and honey. Brother Root, we shall think you are the worst crank there is going if you continue to talk such nonsense." Hold steady, friends. If you are well and *warm*, and your food agrees with you, by all means eat the fruit and milk and honey, and thank God for them. If you are a dyspeptic, and especially wedded to nervous chills as I have been, I think you had better listen a little further. Lean meat is almost the only article of food that is digested entirely in the stomach. Look it up in your physiologies, if you think I am wrong. Where one has chronic dyspepsia, or a tendency toward chronic dysentery, his life may depend upon giving the lower intestines a rest. Vacations are very fashionable nowadays; in fact, they seem to be the rage almost everywhere. Why not give your digestive apparatus a vacation, or at least that part of it? I believe the thing is entirely possible. From the very first meal of this pulverized or rasped beef, as you might term it, my bowels began to feel rested. The hubbub and turmoil and distress stopped *right away*. In fact, for weeks past I should not have known I had any "insides" at all, so far as any sensation is concerned. The effect was really marvelous. I should not have thought it possible had I not tried it.

Let us now consider the drink part. I will repeat a part of the conversation the doctor and I had together.

"Why, doctor, I did not know you restricted your patients to the amount of lean beef they must eat. Dr. Salisbury used to tell me to eat a pound at a meal if I could; and I did succeed in eating a pound just as it comes from the butcher."

"Well, that might have done for you 25 years ago, but I think we have a better way now. You must not overeat, even with lean meat."

"But, doctor, I can have all the pure water I want to drink, can I not?"

"You can at stated periods. Three hours after any or every meal you may drink all the water you choose, but no *cold* water. Take it as hot as you can drink it conveniently. I should like to have you drink at least a pint—a quart would be better. The first thing to be done is to wash and cleanse and rinse your whole digestive apparatus. You want to bathe it out thoroughly every day, and four times every day if you can. If you can not have your hot water within 2½ or 3 hours *after* each meal, and, say, an hour or an hour and a half *before* getting a meal, then skip it—don't have it at all. Your beefsteak will be digested and out of the stomach in from 2½ to 3 hours. If you drink the water sooner, or drink very much during your meals, you will dilute the gastric juice, and hinder or stop digestion. Cold water especially will do this at your stage of the disease. You may have noticed it."

I told him that I had for years been deciding I could not drink cold water during mealtime; and I felt better to take almost no liquid at all. I had also learned that water (especially ice water) within, say, an hour after my meals, stopped digestion, and gave me much distress. I told him how often I had been parched with thirst during attacks of dysentery, but did not dare to drink a drop, as it was so sure to distress me. He told me I would find at such times I could drink *hot* water—as hot as it could be taken into the mouth—without any distress; and I then remembered that, while in Florida, a friend persuaded me to try drinking a good lot of hot water as a remedy. Strange enough it gave me almost immediate relief.

You may be a little surprised to find that one very soon learns to relish *hot* water. At first I thought it would be more palatable with acid phosphate or a little ginger, or something of that kind, added to give it flavor; but now I greatly enjoy my pint or quart of pure soft hot water four times a day. I take the first dose at five o'clock in the morning, so as to get it an hour and a half before my breakfast.

In a recent number of the *Ohio Farmer* a writer suggests that horses will do a greater amount of work if a heavy watering is given at 10 o'clock in the forenoon, and between 3 and 4 in the afternoon. He says horses so treated will keep in flesh and strength with less food. I suppose another watering the last thing at night would be in proper order. Give them a little between times if you choose; but let them do the main part of their drinking, as nearly as you can, midway between feeding-times—leaning, of course, a little toward the coming feed, and a little further from the last one. By the way, this hot-water treatment is now so generally known and adopted by people in poor health that perhaps this explanation is hardly needed. I thought it a little hard when the doctor said I must not drink at springs and wells on my wheel-rides. If I continue riding, perhaps these drinks of even cold water would do but very little harm; but I am inclined to think now that hot water at pretty nearly the times mentioned would be much safer and better. Oh! I forgot to mention that, in about four days, I began to dispense with my extra clothing, and the neuralgia and cold in my head suddenly disappeared in a very unexpected way. In a week I was around in my shirtsleeves; in ten days I put on thinner clothing, and dispensed with the flannel chest-protector that I



had worn winter and summer almost constantly for three or four years.

You will recollect that, in our text, Daniel asked of his keeper that he and his friends might be proved ten days. Thus we have Bible authority to the effect that ten days of pure simple diet may bring about a material and perceptible change in one's health. When Dr. Lewis said he would cure my chronic chills in *ten days* I don't suppose he thought of Daniel and my text. Let me digress a little.

Some years ago a writer in the *Scientific American*—and I believe the article was also copied in various papers—took the ground that colds are caused by disordered digestion; and the remarkable thing about the article was that the writer said that, when his diet was right (and I presume that included drink as well), you could not make him "catch cold." He even went so far as to prove his position by public tests. He slept in damp bedding; he went out till drenched through with rain, and then stood in a draft until his teeth chattered; went about with wet feet—did every thing, in fact, that old established rules have laid down as particularly dangerous in this line, but he took no cold at all. He got cold, of course, and suffered for the time being; but when he was warmed up again, no after-consequences followed. This writer has since published a book on health, and I have studied it with much interest, but I can not lay my hand on it now. He did not prescribe the lean-meat diet particularly; but he advised such a course of eating and drinking as to seem to be conducive to wholesome digestion. Well, for years past, whenever I came in to sit down at the table, the doors and windows would have to be closed a good deal of the time in hot weather, or I could not stand it. Mrs. Root and the children have suffered for want of the (to them) delicious cooling breezes, just because papa could not stand a draft; but now I am rejoicing, during my fourth week with the treatment, in being able to wear thinner clothing than any of them; and I can stand as much draft as anybody I know of, or more. North winds that have been, in fact, my deadly enemy, now seem delicious and nice; and it really seems as if I couldn't catch cold, even if I tried to. Of course, I am not positive that this thing will continue; but if it does, it is worth to me a big lot, not only for myself, but that I may point out the way of escape to others who are suffering from hay fever, neuralgia, and feeble vitality in a thousand and one directions.

You may remember that, in my pamphlet on the internal water cure, I suggested that the too frequent use of the hot-water injections is apt to remove the food before the process of digestion is complete; that in this case I had discovered there was a marked loss of strength, from which I inferred that the lower intestines, and may be even the lower colon, perform a part in the operation of digesting the food, and take from it something important, and possessing much nutriment; and that a loss of this results in a loss of strength. Now, letting the stomach do all the work, and leaving the intestines and colon to "take a vacation," as I have expressed it, produces just this result. In a few days you find yourself feeling remarkably clean and light, and perhaps rather "flat," and at the same time you find your strength oozing out, and a faintness or weakness you never felt before, taking its place. I told the doctor I felt as I imagined Samson did when they had cut off his hair. This is the discouraging period in the treatment. I suppose a good many patients turn about and go back, as did Christian's companion in *Pilgrim's Progress*. Be of good cheer, friends; do not be in haste to give up. Prof. Cook once told us in a lecture, that, so great is

the effort nature will make to sustain life, a man could have his whole stomach cut out; and if the connecting tubes were hitched together, the other organs would do their work until nature could manufacture another stomach. We often see the same thing in nature. When the animal economy begins to understand the different order of things, the stomach pretty soon learns to do double service, just as a blind man sees with his ears, and just as a deaf man hears with his eyes. When this lassitude and weakness comes on, lie down and rest. Take it patiently, and it will often go away in a short time. My remedy is a nap, and my naps are as regular before dinner and supper as the meals themselves—that is, when at home and at work. I have recently found that my wheel will usually drive off this weakness.

A few days ago I asked the doctor if he expected me to be able to ride the wheel on lean meat alone.

"Why, bless your heart, yes. If you can hold out until we are out of the woods you will ride your wheel with muscles of iron, and muscles that almost know not fatigue."

I have now been almost four weeks under the treatment. For two weeks I felt as if I had not strength to ride more than half a mile. Three days ago I tried a couple of miles; then about five miles; and day before yesterday (Aug. 15), about eight miles; and last evening, the 16th (the mercury had been in the 90's all day), I rode *twenty* miles after supper; and I came home just running up the hills, because I enjoyed it.

Now just a word in regard to our texts and the moral of the case: I never before heard anybody so emphatic against the use of wine and beer as was Dr. Lewis. He said that, if alcoholic stimulants were really needed, it is better to use pure whisky, brandy, or even alcohol itself, and not beer or wine, that can only start a ferment in the bowels, when such ferments are already the cause of the greater part of the sickness of the present day.\*

Again, the person who has learned to forego luscious fruits and vegetables, and hold right on steady, with nothing to vary the monotony of the invariable lean meat, will not find it difficult to control himself in every other way. The mental and spiritual drill that one learns from such tremendous self-denial ought to last him through life. The "pulse" mentioned in the book of Daniel was probably not lean meat,

\*Thousands of people are probably suffering and dying almost every day by a kind of slow starvation, from the fact that their food ferments and sours in the digestive apparatus, instead of furnishing good healthy material for the blood to build up the system. In fact, the digestive apparatus gets to be a sort of brewery, manufacturing beer and carbonic-acid gas from every thing taken into the stomach, especially food that contains starch and sugar. Most of you have had occasional experiences in this line with disordered stomach and bowels. Well, there are still doctors left who will tell patients suffering in this way to drink *beer* or *ale*, to give them *strength*. Adding beer and fermented liquors when the stomach and intestines are a regular brewery already! What sense or what consistency is there in that? And this very Hires' root beer, that is puffed so much, even in our best papers and periodicals, is only a milder mixture of yeast and sugar. Read the directions—3 lbs. of sugar to a gallon, and then a great lot of yeast to make it ferment. And, by the way, some of the Hires' root beer, when the yeast is tiptop and every thing just right to make "good beer," contains enough alcohol to make one who is sensitive to its influence feel its effect very distinctly. I suppose if the W. C. T. U. should undertake to make a protest in this direction they would stir up a hornets' nest. Be of good cheer, friends. Dr. Salisbury and Dr. Lewis have been for years protesting and proclaiming cautions against this very thing.



but it was a pure simple diet. Be that as it may, the thing that Daniel and his friends objected to (wine) is the very thing Dr. Lewis so positively forbids. Very likely they had pulse to eat and water to drink, each at regular intervals. With such treatment there is no such thing as overloading the stomach. There is no question nor speculation as to whether this, that, or the other is good for you or causes you distress. If our people had perfect control of all their appetites, their tastes, and their passions, this world of ours would be a heaven below. Do you doubt it? Read the last of my three texts—that grand Bible promise: "To him that overcometh, to him will I grant to sit with me in my throne."

A friend said to me only yesterday, "Mr. Root, I have been sick for two days, and it is a good deal your fault."

Of course, this was pleasantry. He went on: "I knew I ought not to eat watermelons; but we had one that was so very nice I could not resist the temptation, but kept on eating. Then we had some of that new kind of beans of yours—the Best of All—and they were so exceedingly luscious, and hit the spot so exactly, I ate more of them than I ought to. It took me about two days, and required some medicine, before I was straightened out again."

How many such cases do you suppose there are in this world of ours? Now, the point is, one who has gone through this ordeal that I have pointed out to you would not be very likely to lose his health, and get back again into the slough of despond. I remembered so well my experience during those 18 weeks 25 years ago that I could thank God for my daily bread at almost every meal since that time with a new understanding of the matter. We never prize God's blessings until we have been deprived of them. We never prize health until we have had some experience with sickness. These bodies of ours are a sacred charge intrusted to us by the great Father of all, and he expects us to take good care of them. He expects reason to hold in check the passions and the appetites under all circumstances whatever. If we disregard Reason, and set her admonitions at naught, then we have got to go back and live a life of self-sacrifice, and even total abstinence from many things that we might otherwise enjoy with impunity.

Is it really a method of healing diseases without medicine? To a certain extent I think it is; but Dr. Lewis told me it would be very much better if the matter were looked after under the charge of the regular family physician. He said the family physician could engineer the patient clear through without any difficulty at all if he only *would*. The difficulty is, he may not himself have faith in it; and then, again, it is not a very pleasant or taking method of treating disease. The average physician knows this perfectly well, from the experience he has had in undertaking to get his patients to leave off tobacco, tea, and coffee, extravagant use of sweets, etc. Like the faithful pastor who preaches plain truth, it may sometimes cut off his salary a trifle, for the time being. Again, the family doctor, to obtain the best results, should be able to examine the blood, the urine, the secretions, etc. The principal difficulty to be met is that of constipation, which is almost sure to follow. Now, I have spoken exceedingly plain before on these pages in regard to this matter of curing disease without medicine, and I am sure our friends—at least the ailing ones—will pardon me right here if I speak so that I may be clearly understood in this matter. With the pure lean-meat diet there is no need of a movement

of the bowels oftener than two or three times in a week.\* On one occasion, when I had gone four days, Ernest took the responsibility of giving me one of his favorite pills. He asked Dr. Lewis afterward what he thought about it, and the latter replied: "Oh! no, no! Pills may do for *you*, but no pills for your father."

You see, after my tendency to chronic dysentery, taking pills is like waking up the baby after you have walked the floor with her for hours to get her to sleep.

"Well, doctor, if I can not take pills or physic, what am I to do?"

"Why, just take a tablespoonful of castor-oil before you go to bed. If one tablespoonful does not answer, try two. Castor-oil will lubricate and soothe those long-suffering intestines, rather than rasp them up again as physio does."

Now, if you call castor-oil medicine, then my talk to-day is not exactly doctoring without medicine. I believe that, with many patients, both Lewis and Salisbury are in the habit of giving some sort of tonic before the meal, and a preparation of pepsin so as to assist digestion after the meal. Ordinarily, pure fresh lean meat and pure water are all that is needed—"pulse to eat, and water to drink;" and, dear reader, if you will prove it ten days, as did Daniel and his little band, I think you may not only be wiser and brighter, and clearer in intellect, but you may also see your way out of troubles that have followed you for years.

Just a word, before closing, in regard to the manner of cooking this ground-up beefsteak. It must not be fried or browned, for that spoils its digestibility. It should be broiled, and the broiling must be done just right, so it will be juicy, soft, and rich. There is on Euclid St., Cleveland, O., a place called the "diet-house," where they have made it their business to cook meat for the Salisbury patients for 25 years or more. As they cook it, it is about the most delicious and strength-giving article of food I ever tasted. After eating 10 ounces a few days ago, I felt as well satisfied as if I had had the best meal that could be furnished in that great city. I bought some of the very same beef, of the very same butcher; but after I got home we found it was quite a little piece of skill to cook it exactly as they did at the diet-house. But Ernest finally mastered it. The secret is in having it cooked alike all the way through, and be sure not to have any portion of it overdone. If right, it will be juicy, soft, and toothsome, requiring very little chewing; and from it strength and energy come very quickly to the oftentimes weak and hungry patient.

\*May I in this little footnote be pardoned for speaking still more plainly? I am now in my fourth week, and my bowels move without any castor-oil or anything else but a mild hot-water injection, without the least bit of pain; and, most astonishing of all, the small amount of residue left after perfect digestion is absolutely *without smell*. Ever since I was a child I have wondered again and again why it was that human beings should necessarily have anything to do with almost the foulest substance that one can well imagine. Is it right, and is it God's will, that we who are called the temples of the Holy Ghost should have any thing about us at any time so offensive and repulsive to every refined thought and feeling? and it rejoices my heart to know that it is even possible for one to have a sweet breath, a sweet-smelling body, and to be sweet and clean always and everywhere. You see this talk is only a continuation of my talk years ago under the head of my favorite little text, "Wash ye, make you clean."